

<110> Rosen et al.

<120> 28 Human Secreted Proteins

<130> PZ003P4

<140> Unassigned

<141> 2001-05-11

<150> 60/265,583

<151> 2001-02-02

<150> 09/152,060

<151> 1998-09-11

<150> PCT/US98/04858

<151> 1998-03-12

<150> 60/040,762

<151> 1997-03-14

<150> 60/040,710

<151> 1997-03-14

<150> 60/050,934

<151> 1997-05-30

<150> 60/048,100

<151> 1997-05-30

<150> 60/048,357

<151> 1997-05-30

<150> 60/048,189

<151> 1997-05-30

<150> 60/057,765

<151> 1997-09-05

<150> 60/048,970

<151> 1997-06-06

<150> 60/068,368

<151> 1997-12-19

<160> 118

<170> PatentIn Ver. 2.0

<210> 1

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1

gggatccgga	gccc aaatct	tctgacaaaa	ctcacacatg	cccaccgtgc	ccagcacctg	60
aattcgaggg	tgccacgtca	gtcttctctt	tcccccaaaa	acccaaggac	accctcatga	120
tctccggcag	tcctgaggtc	acatgctgtg	tggtggacgt	aagccacgaa	gaccctgagg	180
tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	aagccgcggg	240
aggagcagta	caacagcacg	taccgtgtgg	tcagcgtcct	caccgtcctg	caccaggact	300
ggctgaatgg	caaggagtac	aagtgcagg	tctccaacaa	agccctccca	acccccatcg	360
agaaaacctt	ctccaaagcc	aaagggcagc	cccgagaacc	acaggtgtac	aacctgcccc	420
catccccgga	tgagctgacc	aagaaccagg	tcagcctgac	ctgcctggct	aaaggcttct	480
atccaagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccggagaa	aactacaaga	540
ccacgcctcc	cgtgctggac	tccgacggct	ccttcttctt	ctacagcaag	ctcaccgtgg	600
acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcac	gaggctctgc	660
acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaataagtg	cgacggccgc	720
gactctagag	gat					733

&lt;210&gt; 2

&lt;211&gt; 5

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; Site

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the twenty naturally occurring L-amino acids

&lt;400&gt; 2

Trp Ser Xaa Trp Ser

1

5

&lt;210&gt; 3

&lt;211&gt; 86

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3

gcgcctcgag	atttccccga	aatctagatt	tccccgaaat	gatttccccg	aatgatttc	60
cccgaatat	-ctgccatctc	aattag				86

&lt;210&gt; 4

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4

gcggcaagct ttttgcaaaag cctaggc

27

&lt;210&gt; 5

&lt;211&gt; 271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5

ctcgagattt	ccccgaaatc	tagatttccc	cgaaatgatt	tccccgaaat	gatttccccg	60
aaatatctgc	catctcaatt	agtcagcaac	catagtcctg	cccttaactc	cgccccatcc	120
gcgccctaac	ccgccagatt	ccgcccattc	tccgccccat	ggctgactaa	ttttttttat	180
tctatgcagag	gccgaggccg	cctcggcctc	tgagctattc	cagaagtagt	gaggaggctt	240

ttttggaggc ctaggctttt gcaaaaagct t

271

<210> 6  
<211> 32  
<212> DNA  
<213> Homo sapiens

<400> 6  
gcgctcgagg gatgacagcg atagaacccc gg

32

<210> 7  
<211> 31  
<212> DNA  
<213> Homo sapiens

<400> 7  
gcgaagcttc gcgactcccc ggatccgcct c

31

<210> 8  
<211> 12  
<212> DNA  
<213> Homo sapiens

<400> 8  
ggggactttc cc

12

<210> 9  
<211> 73  
<212> DNA  
<213> Homo sapiens

<400> 9  
gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg  
ccatctcaat tag

60

73

<210> 10  
<211> 256  
<212> DNA  
<213> Homo sapiens

<400> 10  
ctcgagggga ctttccggg gactttccgg ggactttccg ggactttcca tctgccatct  
caattagtcg gcaaacatag tcccgcctcc aactccgccc atcccgcccc taactccgcc  
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga  
ggcgcctcgc gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctag  
cttttgcaaa aagctt

60

120

180

240

256

<210> 11  
<211> 2084  
<212> DNA  
<213> Homo sapiens

<220>  
 <221> SITE  
 <222> (839)  
 <223> n equals a,t,g, or c

<400> 11  
 ctatcagatg ctgggcccctc tcagccatag cccctctgctc ctacccccctg actggctcttt 60  
 gtgtctctcac ctctccaccct ctccctctcctg ggagggccctg ggaggggtgac attgaccaccc 120  
 agccaagcag acagctgcgg gtgcccacgc cctgtctggg cctgcgcgtg aggagtcacca 180  
 ctgctctctaa aggaagctct gggcaggagg ttgcttttgt ggttggttcc aaagtgtgaaa 240  
 atgcttgcag tttagacctta gaagaagtgg gaagaagaag gagctctaca gggctcagctt 300  
 tgtttgattt gtccagctcta agaagtccca ttgcccacgc tttctgcagg aggggtgaagt 360  
 ccgcagctgt gcagccccctg ggtttctctt ggaaatggtc agtttccctc caaagtaccc 420  
 aaagttagct agttcttcag caggaagaca gctctagcac tgcctctttt tagagaagag ggcatctaga 480  
 ctgcattttc ctgggttaaa aaggttaaa ccaatgttta ttgccttttc tagtgaacta 540  
 actcgtagag atgtttctcag caggaagaca gctctagcac tgcacttag cagattgcaac 600  
 ttaagtccct tgtgtctgccc agatggcggtg cctgggttgc ttaatatgtc ccaggacccc 660  
 tgacagggtc cctgtgccc tccctcgtgc tctcaagag ccaggtccat acactgttga 720  
 tgtcatgtgt gtccgggttag gaagtcttgt cctagaacgc cctggcttgt atgaccacga 780  
 ttcatggcgg ctctctctgc ttgggtcatg gtcactcttc agcacctgt gtgctgggna 840  
 agggccaggga tggggggccca gcactgtcca ggcctgctgg ggcctgtggt ggagtcctgt 900  
 gggcagcatg gaacatgcag ttgggcttcc tgtgaccagg caccctctgg cactgttgtt 960  
 tgcctgtgct cctggacact ttctgcctct tctcctctct cctgtctctt ggggtacccc 1020  
 cttggccctc cctggctgtg gcaaacctccc tcaggaggcc cccctgcctt gtagctctcr 1080  
 cttaactctc taggggctgc tgagcccacc cagaggttgt tggagttcag cggggcagct 1140  
 tgtctccctt gtacagaggg gcgtaaagggc tgggtttggc catacaaggt tggctacgcc 1200  
 ctcaatccct gaccgttcca ggcactgagc tgggcaccca cgggaaggaca tgcgtccag 1260  
 actgtgatga ctgccagcac agggcatctc gggcttgtgt ggtctgcgag cccttgcccc 1320  
 tgttggaact tgggttctct tttctcagt cttttttgct gctttgtctg ggttgccagc 1380  
 tgccgtactc caggctttgt tcggccactc agatgagggc tgtgtgtgca gccagtgcag 1440  
 gagagctgct ctgggattg tgccctctcc tgtgtctgtc ctcgggaact acccaggtct 1500  
 ccaccatcag gaccctgtct ttgggttttag aagaccaagt atgggggaaa ccaggcacca 1560  
 gcctctgcag caatgggtcc cctagccctg tggacaccag ctggggggaac cagggtcagg 1620  
 cccctcctc tccccagttt cctctgctgt tgggtttcgg gctgtcatgt ctccaccact 1680  
 taaggatgtc tttaactga cttcaggata gatgtcggga tgcctgggca tggccacatg 1740  
 ttactgttac agaactttgt ctacagcaca aattaagtta tataaacaca gtgactggta 1800  
 ttaaatgctg atctactata aggtatttcta tatttatatg acttcagaga cgcgtatgta 1860  
 ataaaggagc cctctccctc agtgtccaca tccagttcac cccagagggg cggcaggtt 1920  
 gacatattta tttttgtcta tttctgtagg tccatgtccc agaactctgc ttaaggtttt 1980  
 agggtaacct cagtactttt tgcaataaaa gtatttccca tccaaaaaaa aaaaaaaaaa 2040  
 actcgagggg gggcccggta cccaattcgc cctataaag agtc 2084

<210> 12  
 <211> 1586  
 <212> DNA  
 <213> Homo sapiens

<400> 12  
 aattcggcac caggagaagt ggagtttggga agttcagggg cacaggggca caggcccacg 60  
 actgcagcgg gatggaccag tactgcattc tgggcccgat cggggagggc gccacmgca 120  
 togtctctcaa ggccaagcac ttggagactg gcgagatagt tgcctccaag aaggtggccc 180  
 taaggcggtt ggaagacggc ttccctaacc agggccctgc ggagattaa gctctgcagg 240  
 aratggaggga caatcagtat gtggtacaac tgaaggctgt gttccacac ggtggaggtc 300  
 ttgtgtcggc ctttgagttc atctgtctgg gttggtccga ggtggtgcgc catgcccaga 360  
 ggccactagc ccaggcacag gcgaagagct acctgcagat gctgtccaag gttgtcgtct 420  
 tctgcactgc caacaacatt gtacatcggt acctgaaaac tgccaaactg cctcatcagc 480  
 cctcaggcca gtccaagata gggcactttg cctggtctgc agttctttcc ccagacggca 540

```

gccgcctcta cacacaccag gtggccacca ggagctcact gagctgccgg actacaacaa 600
gatctccctt aagcagcagg tgcccattgccc cctggaggag gtgctgcctg acgtctctcc 660
ccaggcattg gatctgctgg gtcaattcct tctctaccct cctcaccagc gcattcgcagc 720
ttccaaggct cctcccate agtaactctt cacagctccc ctgctgcccc atccattctga 780
gctgcgcgatt cctcagcgtc taggggggacc tgcccccagg gcccatccag gggcccccca 840
catccatgac ttcccagctgg accggcctct tgaggartcg cctgttgaacc cararctgat 900
tcggcccttc atccctggarg ggtgagaagt tggccctggg cccgctgcc tgcctctcag 960
gaccactcag tccactctgt cctctgccac ctgctgggct tccacctcca aggcctcccc 1020
atggccacag tggggccaca cacacacctg ccccttagcc ctgcgaggag ttggtctctga 1080
rgcagargtc atgttccocag ccaagagtat gagaacatcc agtcgagcagc aggagattca 1140
tgccctgtac tcgggtgagcc ttacctctgt tgtgcttcac atcactgagc actcatttag 1200
aagttagggg gacagaaagt tagscaccag gatggctcca gttgggggac cagcaggaga 1260
ccctctgcac atgaggctgg tttmccaaca tctactccct caggatgagc gtgagccaga 1320
agcagctgtg tatttaagga aacaagcgtt cctggaatta atttataaat ttaataaaatc 1380
ccaatataat cccagctagt gctttttcct tattataatt tgataagggtg attataaaag 1440
atacatggaa ggaagtggaa ccagatgcag aagaggaaat gatggaggga cttatggtat 1500
cagataccaa tatttaaaag tttgtataat aataaagagt atgatttgtg ttcaaggata 1560
aaaaaaaaa aaaaaaaaaa actcga 1586

```

```

<210> 13
<211> 689
<212> DNA
<213> Homo sapiens

```

```

<400> 13
atggaagcta agttttggcct gctttgcttt ttagtctcca caccatgggc agaactgctg 60
tctttactac ttcatctcac ccaagtcccc ttcccaggca gccaggggct ggggttgaat 120
aatgacaggg cagcctggcca tgatctttct cacttactcc tctcccattc agcaatcaac 180
cagactaaag agttttgatc cctagtgtatt acagccctga agaaaaattaa atctgaatta 240
attttactga gcttctgtga tttttctgct gttcttactt ttctgaatgt agttgggggg 300
tgaggaggac aggttatgtt atttaaagag aataaacatt ttgcacatac atgtatttga 360
caacagtaag atcctctgtt aaaaccagct gtccctgtct ccatctccat tcttcccat 420
gctgtaaccc caggctccac cagctgttcc ccagtgtatg tcccttagct cctctaccg 480
ttgtctactg accatttcca ctacatgctt ttcctacctt cctctacaa ccaatcaagt 540
gaatacttga ttattatctc ttccctactg tgccttatct tttttgtttg gattgtgtct 600
aattaatgaa aataaaagt tctaaattta catttttata ggggtattga aataaaaaa 660
aatgtatact taaaaaaaaa aaaaaaaa 689

```

```

<210> 14
<211> 1348
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c

```

```

<400> 14
acgaagacac cagaccctgt ggagcctgtg gtgaccacg aaggncagtt cgggtgcagc 60
agggctcgag cccagaaaaa tatcctctaa gaccagacgt gacaaggaga agcagagctg 120
taagagctgt ggtgagacct tcaactccat caccagagag aggcattcact gcaagctgtg 180
tgggggcgct atctgtggga agtgctccga gttcaaggcc gagaacagcc ggcagagcct 240
gtctgcagag attgtttcct gacacagcca gtggccctg agagcacaga gaagacacc 300
actgcagacc cccagccagc cctgctctgc gggccctgct ggtctgtaga gagcggtag 360
acctggagcg aggtgtgggc cgccatcccc atgtcagatc ccagggtgct gcactgcag 420

```

gkaggcagcc	aggacggccg	gctgccccgc	accatccctc	tccccagctg	caaaactgagt	480
gtgccggacc	ctgaggagag	gctggactcg	gggcatgtgt	ggaagctgca	gtgggccaag	540
cagctcctggt	acctgagcgc	ctctctccga	gagctgcagc	agcagtggtc	ggaaaaccca	600
agcactgctg	cccatgggga	cacggcccag	gacagcccgg	gggcccctga	gcttcaggtc	660
cctatggggc	cagtgtctcg	tgagctgagt	ctcccaactgc	cctgcacacc	accacaattgg	720
acctgtgctg	tctctggggg	tgggtgttga	ggccccatga	agagcgccct	ggactttgctt	780
gaggggtgggc	caacagccca	gagytcagga	catttggcct	tgggggggaag	gaaaytgagg	840
ccccagagag	ggcaaacayt	ggccaagggt	caccocagca	gttttgggta	agagcctggc	900
ctccagcccc	agcagtkttg	cccagagcag	ggggcgaagt	ccaaagtaac	catcatccat	960
atggggccgtg	tgggtgatgt	ggcccgggaag	gcagaaaagag	gcagcatggg	cactgcccag	1020
gacagccaca	tctctgctgt	ctgcagcgtg	gtccaccccc	cctctgcccc	gctgtgttac	1080
accgtgtgag	ctgaatcgtg	acttgcttcc	cacctccctt	ctctgtcttc	tcttgaggtt	1140
ctgcctgcag	cccccaggag	gtgggcctgc	ccatccctag	ctggactcat	ggttcctaaa	1200
taaacacgct	cagaagctct	gctaggagct	accccagcca	ctgagtgga	ggcgcatgag	1260
atttctggct	gttctctgat	ctagtggcac	acagtgtcta	tctgcataaa	taaacactgg	1320
scaccaaaaa	aaaaaaaaaa	aaaaaaaaaa				1348

&lt;210&gt; 15

&lt;211&gt; 1123

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 15

cgccgccagc	ccctgctgct	ctgggcagac	gatgctgaag	atgctctcct	ttaagctgct	60
gctgctggcc	gtggctctgg	gcttctctga	aggagatgct	aagtttgggg	aaagaaaaga	120
agggagcgga	gcaaggagga	gaaggtgctc	gaatgggaac	cccccgaaag	gcttgaaaag	180
gagagacagg	aggatgatgt	cccagctgga	gctgctgagt	gggggagaga	tgctgtgcgg	240
tggtctctac	ctctggcctgt	cctgctgcct	cgggagtgac	agcccggggc	tagggcgccct	300
ggagaataag	atattttctg	ttaccaacaa	cacagaaatgt	gggaagtta	tggaagaaat	360
caaatgtgca	ctttgtcttc	cacattctca	aagcctgttc	cactcacctg	agagagaagt	420
cttggaaga	gacctagtac	ttcctctgct	ctgcaaaagc	tattgcaaa	aattctctta	480
cacttgcgca	ggccatattc	caggtttcct	tcaaacacac	cgggatgagt	tttgccttta	540
ctatgcaga	aaagatgggt	gggtgtgctt	tccagatttt	ccaagaaaac	aagtcagagg	600
accagcatct	aactacttgg	accagatgga	agaatatgac	aaagtggaa	agatcagcag	660
aaagcacaaa	cacaactgct	tctgtattca	ggaggttgtg	agtgggctgc	ggcagcccg	720
tggtgcccct	catagttggg	atggctcgca	acgtctcttc	attctggaaa	aagaagggtta	780
tgtgaagata	ctttaccctg	aaggagaaat	tttcaaggag	ccttattttg	acattcaca	840
acttgbtcaa	agctggaata	aggttggtct	ttcaaatctt	atttattttt	gtgctggcta	900
cgtaattttt	atttttagtgt	taccttcttc	actgaaggta	ttctcttgta	ataaaaagaa	960
gaatcttgca	ggagaaaaat	agggggcaca	ataagaacaa	ataattatgt	cacctgaatt	1020
aggacagtag	cattaaattt	ctgttatatt	ttaaaaaaaa	aaaaaaaaaa	aaacagtggt	1080
aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaa		1123

&lt;210&gt; 16

&lt;211&gt; 890

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

ttttaattga	tctgtgaraa	aacttaagaa	aatcacaaat	tcagctaaca	gcaattgtgt	60
ccccaaagat	aagatactat	aacctcaaat	ggctgcagat	cagaactggg	ctggatgaca	120
tcctcatctg	gccatgtcct	ggggcatttg	gaagggagct	gacctctttc	ccctcatcaa	180
aggaacacag	agctctttgc	ctttctctgt	gggttgctcc	aaagggctaca	gtagctctga	240
aataacacag	gctctgtaat	aacagtaata	aatagctctg	aaataaacag	cctaagaact	300
ctaaagctcc	tgagaaactt	cttctgtaag	cagctctttt	ttctctctg	aaacagtggt	360
ttctaattgg	attcccaggc	agttcctaca	cctacgggtg	gtgttccagc	aggagagggt	420

tatgggtctgg	gctgcctttt	cccatgggtc	ttcatcccca	atggaaagt	cactctgctt	480
agtttggaa	tatttttctt	tcagttgttc	tggaaacctt	gctttttatt	gatttataca	540
atacaattgg	tgggagggtg	gacttgggat	gggagtggga	aaagcatgta	agagctcctt	600
ttgtgatgg	ccatctaccc	aaaagagatc	tgcttttagt	aacgatactc	tttcattttt	660
ctaaattaga	tcaagttgtt	attgatttta	gatgacttgt	atgcaaat	gaaaaacttt	720
ttttttttaa	gctgattggg	aactacaaac	aatgaatgga	atctactgac	acagctaatt	780
ggaaaaacga	tgtcttcttc	tgtctctatt	atgtgtgtgt	ttaaaaaaca	tcacttaaaa	840
aaaaagaata	aatagtttcta	aaagcaaaaa	aaaaaaaaaa	aaaaaaattc		890

<210> 17  
 <211> 619  
 <212> DNA  
 <213> Homo sapiens

<400> 17						
tcaggccccc	ctgactccgc	cccgcacaac	tctcactcgc	ccttcgtgtc	ccatcaggtc	60
ccgctgactc	cgccccgcaa	tactctcact	cgcccttygt	gtcccatcag	gtcccgtcta	120
ctccgccccg	caacactctc	acttgccctt	cggtgcccat	caggtccctg	tgactccatc	180
tcctcagcgt	ctccaaatcg	tcctctcctt	gccacctctt	gcctggatta	ctacagcagc	240
ttctaacgag	ttccctcgcc	tttcagttct	ccgcaccgct	tcaagtgttc	agtctggatg	300
gtctgtcact	cccagcgcca	aaactgctga	cggtctccct	ttgccttcag	gacgaagctc	360
gtcgtgtctg	acataactta	taggaccttt	tagccagcct	gggcaacata	gcaagacctc	420
gtctctacca	gaaatacaaa	aaatgagcca	ggcatatggg	tgtgcacctc	tagtcccagc	480
tactttggag	gctgaggtgg	gaggatcacc	tgagccagag	aagtcaggcc	tgccagttag	540
ccatgatcac	accactgcat	tccagccttg	gccacagagt	gagacctctg	ctcaaaaaaa	600
aaaaaaaaaa	aaaactcgca					619

<210> 18  
 <211> 1768  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (483)  
 <223> n equals a,t,g, or c

<400> 18						
gaagccagac	agtgacctca	aatgttgctt	tggagtcctc	tacagccctt	cagcagaggg	60
cagcacttga	atgcttagct	ccatcccata	gttctctaca	ttacatgctt	gtctcttaag	120
gtggccctct	ctctcaggcg	ttcagatggt	gcgaacagca	gagcaggcaa	gggaaactgg	180
ggagatgggg	atggaggagg	aaaggctgata	ttctctgggg	agcacatcac	ctgaaggtgc	240
caaggaggaa	ggctgagagg	ggggmcaccc	atttctggta	cccaatttgg	ttcttcagcc	300
caacttgcaa	ggggttctct	ctggctctcc	catccactgc	caccttccat	tttgtccatc	360
tcagtctgct	cttgggtggat	gggatgggct	tatctagaca	aaattttttt	aaaaactcat	420
caaggctctt	attcaatacc	acgttccgag	ttggctcttc	atctctcttg	agactggccc	480
tgntcaacct	ctaccatcaa	tgagctcttg	gccctctctg	ccttccctgt	gtttctcact	540
ttccaaacct	atccctggct	cagggttatt	gccagtggag	actgggtgag	tgggcctact	600
ctcagctgcc	tatctctctg	ctttcacttg	catccaaact	ctggggctgg	gaccgtagta	660
gctgcggggg	ggaagaaaca	cagggtcggt	gagccagcga	tgtgcgttgg	tttgaggggg	720
cgggcggtgt	gtgtgtgttc	tggtggggag	gatctgagca	agtgcaagtc	tggtcgacac	780
aggtgtgaag	agggcattct	ggaacccagk	tgaggggcaa	atgaagcgtt	ccaggcgaaa	840
cagctgcaga	gagttttggct	atatgcattc	gcagcccaaa	gagctcccat	tgcaagacaa	900
gtgttgggga	agatggggag	ttgtgggtga	ggcctctaaa	ggctctctcc	caaaactgac	960
agggctgatg	caacctaaac	ccctcagggg	caggggaacg	gggaggggtc	cacaagcggt	1020
tctggcattc	ccaccacaca	tgggaagactg	gatacgacac	tggaaacaaa	aggactatgg	1080

aagctgttca	agatacattt	gatcttcaga	aaagcagaat	tgggttcaac	tgttgacaga	1140
ggacacaaat	acgttgtttc	agagctcagc	cttctcactc	taaaagaaaag	atatttttct	1200
atttattttc	tacatctggc	cagtggtctc	gggtctagat	gccactgtag	ccagatctcc	1260
aaacagtgct	tggaacatgg	actcatactc	aactgagtaa	gaaggggctg	gtgcccagtcg	1320
gggtggctga	gctgggtcct	aataggttgt	ttcttgggtc	tgtctttctc	atgcccctcc	1380
cactgtctct	gccaccttta	gataagtttc	tctagttaat	ttgtgggcca	atgtaaaatt	1440
cgtcatcaac	ctaacaaca	caacctctc	agcagcattt	ctccccgtg	atggaaaata	1500
agtggttagg	gcaagtggag	gagaaaaatt	yyccagggtg	atgggggaag	gtctgtctcc	1560
gcctctccct	actcccattc	catcttcacc	aactggggaa	ctgtgactat	ctatctcccc	1620
cgactcttac	cagggatgcc	ttcagccaag	gctgtttcca	ccagctgcct	cagatgacaa	1680
atgaggctaa	tggaacata	ctacagtgtc	ctttttcact	tgcacctttt	ttataagaat	1740
atattgtta	actaaaaaat	attaaaatt				1768

<210> 19  
 <211> 1699  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (871)  
 <223> n equals a,t,g, or c

<400> 19						
ctcgtgcccga	attcgggcag	agcgaaaaga	tggcgggtctt	ggcacctcta	attgctctcg	60
tgtatttcggt	gcccggaact	tcacgatggc	tcgcccaccc	ttactacctt	ctgtcggccc	120
tgctctctgc	tgctctccta	ctcgtgagga	aactgccgcc	gctctgccac	ggctctgccc	180
cccaacgcga	agacgggtaac	ccgtgtgact	ttgactggag	agaagtggag	atccctgatgt	240
ttctcagtcg	cattgtgatg	atgaagaacc	gcagatccat	cactgtggag	caacatatag	300
gcaacatttt	catgttttagt	aaagtggcca	acacaattct	ttctctccgc	ttggatatcc	360
gcattgggct	actttacatc	acactctgca	tagtgttctc	gatgacgtgc	aaaccccccc	420
tatatatggg	ccctgagtat	atcaagta	tcagtata	aaccttgat	gaggaactag	480
aacggggacaa	gaggggtcact	tggaattgtg	agttctttgc	caattgtgtc	aatgactgac	540
aatcattttg	ccctatctat	gctgacacct	cccttaata	caactgtaca	gggtataatt	600
ttgggaaggt	ggatgttgga	cgctatactg	atgttagtac	gcggtacaaa	gtgagcacat	660
cacccttcac	caagcaactc	cctaccctga	tcctgttcca	aggtgggaag	gaggcaatgc	720
ggcgccgcaca	gattgacaag	aaaggacggg	ctgtctcatg	gacctctctc	gaggagaatg	780
tgatccgaga	atttaactta	aatgagctat	accagcgggc	caagaaacta	tcaaaaggctg	840
gagacaatat	ccctgaggag	cagcctgtgg	nttcaacccc	caccacagtg	tcagatgggg	900
aaaaacagaa	ggataaataa	gatcctcact	ttggcagtcg	ttcctctcct	gtcaattcca	960
ggctctttcc	ataaccacaa	ccctgaggct	cgagcctttt	atttatgttt	tcctctttgc	1020
tgtgaactgg	tgggggcagca	tcgacgtctc	gatttttaag	aggcatctag	ggaattgtca	1080
ggcacccttac	aggaaggcct	gcaatgctgt	ggccaactgt	ttcactgtgag	caagaaagag	1140
atctcatagg	acggaggggg	aaatgggttc	ctctcaagct	tggtgtgagt	tggttaactgc	1200
ttatcagcta	ttcagacatc	ttcatgggtt	ctccatgaaa	ctctgtgtgt	tcactcatcc	1260
ctcttagttg	acctgcacag	cttgggttaga	ctctagattt	accctaaagg	aagatgctgg	1320
gggtatagaa	gcctaagaatt	ttcccccaag	gactcttgct	tccttaagcc	cttctgcctt	1380
cgtttattgt	cttcattaaa	agataaagcc	taactttgtc	gtagtcctca	aggagaaaacc	1440
tttaaccaca	aagttttttt	cattgaagac	aatattgaac	aacccccctat	tttgtggggga	1500
ttgagaaggg	tgtaataagag	cccttgagact	ttcctttgtg	ttgttagact	tgaggagagaa	1560
atccccctga	ctttcactaa	ccctctgaca	tactccccac	accagtttga	tggtctttccg	1620
taataaaaaa	attgggtgatt	ccttttgaaa	aaaaaataaaa	aaaaaataaaa	aaaaaataaaa	1680
aaaaaaaaaa	aaaaaaaaaa					1699

<210> 20  
 <211> 736



<212> DNA  
 <213> Homo sapiens  
 <220>  
 <221> SITE  
 <222> (701)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (728)  
 <223> n equals a,t,g, or c  
 <220>  
 <221> SITE  
 <222> (733)  
 <223> n equals a,t,g, or c

<400> 20  
 aagtgaagta aggcgtact cgtcttggtg agagcgtgac tgctgagatt tgggagtcgt 60  
 cgctaggccc gcttgagatt ctgagccgat ggaagagttc actcatgttt gcacccgcgg 120  
 tgatgcgtgc ttttcgcaag aacaagactc tcggctatgg agtccccatg ttgttgctga 180  
 ttgttggagg ttcttttgggt ctctgtgagt ttctccaaat cggatattgat gctgtgaaga 240  
 gtaaaatgga tcctgagctt gaaaaaaaac tgaagagaaa taaaatatct tttagagtcgg 300  
 aatatgaga aatcaaagac tccaagtttg atgactggaa gaattatcga ggacccaggc 360  
 ctgggaaga tcctgacctc ctccaaggaa gaaatccaga aagccttaag actaagacaa 420  
 ctgactctg ctgattcttt tttctctttt ttttttttta aataaaaaa ctatttaactg 480  
 gacttcttaa tatatacttc tatcaagtgg aaaggaaatt ccaggcccat ggaaccttgg 540  
 atatgggtaa ttgtatgaca aataatcttc actaaaggtc atgtacaggt tttttactt 600  
 ccagctatt ccactgtgg atgaaagtaa caatgttggc cagctatat ttacacctcg 660  
 aataaaaaa ttgtaactact gctccaaaaa aaaaaaaagt nggcgagctt tccctagggg 720  
 ggtaatnngc tgnctgc 736

<210> 21  
 <211> 1698  
 <212> DNA  
 <213> Homo sapiens

<400> 21  
 caaagaaggg attcatcttg cattggtgga gctgctgaaa aatttaacca agtaccctac 60  
 tgatagggac tccatatgga agtgcttgaa gtttctggga agtcggcatc caaccctgg 120  
 gcttcccttg gtgcccagag ttctgagcac ccacccattt ttgacacag ctgaaccaga 180  
 ctggatgat ccagcttata ttgcagtttt gttacttatt ttcaatgctg ctgaaccctg 240  
 tccaacaagt ccagcattgt tctcagatca cactctcagg cactatgcct acctccgaga 300  
 cagtccttct catcttggtc ctgccttgag gttaccagg agaaaaactgg tgtcatcagc 360  
 tgtttctccc agcatcaca ctcaagagga tcttccagc cagttctctgc agcagagcct 420  
 tgaagaagtg tatagtcttc agcacttgga ccctcaggga gcccaggagc tgctggaatt 480  
 caccatcagg gatctgcaaa gacttgga gaattggcag gaattggcag gactagctga 540  
 ttctcttgcc acctatcttc gctgtcaact acttctcact aaggccttgc aggaagaatt 600  
 gtggaatgta gctgccccct tgtatttgaa gcagagtgat ttggcctcag cagcagcgaa 660  
 acagatttat gaagagacct acaaaatgga attcatgtac agtggtgtgg agaataagca 720  
 ggtggtgatt atacatcaca tgagggtgca ggccaaaagct ttgcaactta tgtaaacagc 780  
 agaactaca cgaggacttg accccttatt tgggatgtgt gaaaaatttt tacaggaagt 840  
 agactttttt cagaggtatt tcatcgctga ttgcccac ttgcaggaca gctttgtgga 900  
 caaactcttt gcacttatgc ccgactcat gacatccaaa cctgcagaag tggctcaaat 960  
 tctacagacc atgctgcgac agagtgcctt cctgcactc ccgcttccag agcagatcca 1020  
 caaagcctca gccaccatca tcgagccagc gggcgagttc agacaacctt ttgcggttta 1080

cctctgggtt	ggtggttgcc	ctgggatgtt	gatgcaaccc	tgagcatgt	gcaggatcct	1140
cagaacactg	ttaaggtcca	gggtcttata	tccagatggc	caggsttcag	atgattcacc	1200
ccaagccctgc	agacttccgg	aatcctggcc	caggcgccga	ccgctcattc	actcaggttt	1260
atctctccca	cacccgttgg	acagagggcat	gccaggttga	agtggaggtc	ctgctggcct	1320
acaactccag	tgtctgcatt	ccaaaatgcc	cctggatgga	gggtggtgag	atgtcaccac	1380
agggtggaac	cagcatcgag	ggcaccattc	ccttcagcaa	gcctgtaaaa	gtttatataa	1440
tgcccaaac	tgacggcgcc	taaggcaaaa	acagctcttc	caaccgtgcc	tagaggcccc	1500
ttcttaggtg	tcagaatgag	ccaagcctga	agcacttcac	ctggaattga	tgtgtaggct	1560
taaggagtat	gtgaccctta	cagctctcat	tggtatcaaa	cacaggataa	attgtttctt	1620
cattaaaaaa	taaaaaacct	tcaagtctac	ttacccttct	cctgtccaca	ataaagtgtg	1680
gaaaacac						1688

<210> 22  
 <211> 2045  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2040)  
 <223> n equals a,t,g, or c  
  
 <220>  
 <221> SITE  
 <222> (2041)  
 <223> n equals a,t,g, or c

<400> 22						
gagctctcgg	ggtatcagg	aggcaggccc	gcgggcgcac	ggcgagcgg	gccgggagcc	60
ggagcggcgg	aggagccggc	agcagcggcg	cgcgrgctc	caggcgaggg	ggtcgacgct	120
cctgaaaact	tgccgcgcgg	ctcgcccaat	gcgcccgagg	cgatgaagat	ggtcgcgcgc	180
tggaacgggt	tctactccaa	cagctgctgc	ttgtgctgcc	atgtccgcac	cggcaccatc	240
ctgctcggcg	ttcgtgatct	gatccatcaat	gctgtggtac	tggttgattt	attgagtgcc	300
ctggctgcatc	cggatcagta	taacttttca	agttctgaac	tgaggaggtga	tttgtagttc	360
atggatgatg	ccaacatgtg	cattgcattt	gcgattttct	ttctcatgat	cctgacatgt	420
gctatggcta	cttaacggag	gtacaagcaa	cgcgcagctg	ggatcatccc	attctctgtg	480
taccagatct	ttgactttgc	ctcgaacatg	ttggttgcaa	tcactgtgct	tattttacca	540
aactccattc	aggaatacat	acggcaactg	cctcctaatt	ttccctacag	agatgatgtc	600
atgtgcagtg	aatccctacc	gtttggtctt	tattattctt	ctgtttatta	gcattatctt	660
gacttttaag	ggttacttga	ttagctgtgt	ttggaactgc	taccgatata	tcaattggatg	720
gaactctctc	gatgtcctgg	tttatgttac	cagcaatgac	actacgggtg	tgctaccccc	780
gtatgatgat	gccactgtga	atggtgctgc	caaggagcca	ccgccacctt	acgtgtctgc	840
ctaacgcctc	aagtggcgcg	actgagggca	cgacttgac	tttgacaga	tctgagcaat	900
agttcttgta	tttcaacttt	gccatgagcc	tctctgagct	tggtttgtgc	tgaaatgcta	960
ctttttaaaa	tttagatggt	agattgaaaa	ctgtagtttt	caacatatgc	tttgctrgaa	1020
cactgtgata	gattaaactgt	agaattcttc	ctgtacgatt	ggggatataa	ygggctctac	1080
taactctccc	taggcattga	aaactccccc	aaactctgat	gaactagaag	ctctgctttt	1140
taactctctg	gccccaaggt	tgggcatctt	ttctctcttt	ccctctcttt	tgaaaaatgt	1200
aaataaaaac	aaaaatagac	aaactttttt	tcagccattc	cagcataagat	aacaaaaact	1260
ttggaaaaac	ggaatgtcaa	ttgtgtaatc	atgtttctaa	ttaggtaatg	agaagtcttt	1320
atgtatgtgt	tacaagaatt	ttcccccaca	cattccttat	gactgaaagt	caatgacagt	1380
ttgtctttgg	tggttaagga	ttttctccat	ggcctgaatt	aagaccatta	gaaagcacca	1440
ggccgtggga	gcagtgaaca	tctgctgact	gttctgttgg	atcttgtgtg	caggagcatg	1500
gggtgacatg	cctcgtatgt	gttagagggt	atagggatg	tggtttggcg	tgcatgggat	1560
ctgggtccccc	ttcttctcgt	gattcacatc	cccaccagg	gcccgccttt	actaagtgtt	1620
ctgcctcaga	ttggttcaag	aggtcatcc	aactgaactt	atcaagtggg	attgggatat	1680
atttgatata	cttctgccta	acaacatgga	aaagggtttt	cttttccctg	caagctacat	1740

cctactgctt	tgaacttcca	agtatgtcta	gtcacctttt	aaaatgtaaa	cattttcaga	1800
aaaatgagga	ttgccttctt	tgtatgcgct	ttttaccttg	actacctgaa	ttgcaaggga	1860
ttttttatata	ttcatatggt	acaaagtcag	caactctcct	gttggttcac	tattgaatgt	1920
gctgtaaatt	aagtygtttg	caattaaaaac	aaggtttgcc	cacatccaaa	aaaaaaaaaa	1980
aaaaaaaaaaaa	aaaaaaaaaaaa	aaaaaaaaaaaa	aaaaaaaaaaaa	aaaaaaaaaaaa	aaaaaaaaaan	2040
naaaa						2045

<210> 23  
 <211> 1101  
 <212> DNA  
 <213> Homo sapiens

<400> 23						
ttgttttcgg	accgtcaata	ttcccgcgcc	tggacgggta	aatagctaaa	gctggcgccg	60
ggctgtccacc	tccgcctctg	ctcccgcacc	cggcccatgcy	cggcctcggg	ctctggctgc	120
tgggcgcgat	gatgctgctc	gcgattgccc	ccagccggcc	ctgggcctcc	atggagcagt	180
atgaggtcgt	gttgccgygg	cgtctgccag	gcccccaggt	ccgcgcagct	ctgcctctcc	240
acttgggcct	gcacccagag	aggggtgagct	acgtccttgg	ggccacacgg	cacaacttca	300
ccctccacct	gcggaagaac	agggacctgc	tgggytccgg	ctacacagag	acctatacgg	360
ctgccaatgg	ctccgaggtg	acggagcagc	ctcgcgggca	ggaccactgc	tttaccagg	420
gccacgtaga	ggggtacccg	gactcagccg	ccagcctcag	cacctgtgcc	ggcctcagg	480
gttttttcca	gggtgggtca	gacctgcacc	tgatcgagcc	cctggatgaa	gggtgcgagg	540
gcggacggca	cgccgtgtac	caggctgagc	acctgctgca	cagcgccggg	acctcggggg	600
tcagcgacga	cagcctgggc	agcctcctgg	gaccccgagc	ggcagccgtc	ttcagggctc	660
ggcccgggga	ctctctgcac	tcccagagag	cccgctacgt	ggagctgtat	gtggtcgtgg	720
acaatgcaga	gttccagatg	ctgggggagc	aagcagccgt	gcgtcatcgg	gtgctggagg	780
tgggtgaatc	cgtggacaag	ctatatcaga	aactcaactt	ccgtgtggct	ctggtggggc	840
tggagatttg	gaatagtcag	gacagggtcc	acgtcagccc	cgaccccagt	gtcacactgg	900
agaacctctc	gacctggcar	gcacggcaac	ggacacggcg	gcacctgcac	gacacagctac	960
agctcatcag	gggtgtcgac	ttcamcgga	ctactgtggg	gtttgccagg	gtgtccacca	1020
tgtgtctcca	cagctcaggg	gctgtgaacc	aggaccacag	caagaacccc	gtgggcgtgg	1080
cctgcaccat	ggcccatgag	a				1101

<210> 24  
 <211> 1659  
 <212> DNA  
 <213> Homo sapiens

<400> 24						
ccgggctgca	ggattcggca	cgagggtggga	gccaaaga	aagggttgct	ccggggtgga	60
acagggatta	tctctctcct	cccttaaga	gtcatgtcta	agagagacac	tctggcactc	120
ttcctggcag	agatttcaatt	ccctttgatt	tccaggggca	tccggggcct	ccttttgcaa	180
atgtagagga	gcatttcttc	agctatggag	ctagagacgg	accgcattgg	gactatcgag	240
gaggggaggg	acctggacct	gatttcaggg	ggggagattt	ttcgtctctc	gatttcacga	300
gcagagattc	atcacagtgt	gacttcaggg	gtaggagacat	acattctcggg	gattttcggg	360
atagagaagg	accacctatg	gactataggg	gtggagatgg	tacttctatg	gatttatagag	420
gtaggagagg	acctcaatag	aactacagag	acagggatgc	tcacgctgtt	gacttcagag	480
gtagggatgc	tctctcaatt	gacttcaggg	gccggggcac	ttatgatatta	gatttttagag	540
gccgggatgg	atcccatgca	gatttttagg	gaagggattt	atcagatttg	gatttttaggg	600
ccagagaaca	gtcccgctct	gatttttagg	atagagatgt	atctgatattg	gacttttagag	660
acaaagacgg	aacacaagta	gacttttagag	gccagaggtc	aggtactact	gactatagact	720
ttagggacag	ggatacgcga	catttcagatt	tcagaggtag	acacccatct	aggactgatc	780
aggatttttag	gggcagagag	atgggatctt	gtatggaaatt	taaaagatagg	gagatgccccc	840
ctgtggatcc	aaattatttt	gatttacattc	agccctctac	acaagataga	gaacattctgt	900
gtatgaartg	gaacaggaga	gaagaatcca	cacatgacca	tacgatagaa	aggcctgctt	960
ttggcattca	gaaggagaaa	tttgagcatt	cagaacaag	agaaggagaa	acacaaggtg	1020

tagcctttga	acatgagtct	ccagcagact	ttcagaacag	ccaaagtcca	gttcagacc	1080
aagataagtc	acagctttct	ggacgtgaag	agcagagttc	agatgctggg	ctgttttaag	1140
aagaaggcgg	tctggacttt	cttggcgccg	aagacaccga	ttacagaagc	atggagatcc	1200
gtgagtggga	tcataggctg	ccaggaaagc	agatgtttgg	ctatggccag	agcaagctct	1260
ttccagaggg	caaaactgcc	cgagatgccc	aacgggaact	tcaggatcaa	gattatagga	1320
ccggccccaag	tgaggagaaa	ccagcagggc	ttattcgatt	aagtggggta	cctgaagatg	1380
ccacaaaaga	agagattctt	aatgcttttc	ggactcctga	tggcatgcct	gtaagaatt	1440
gcagtttgaag	gagataaaca	cagggttacga	ctatggctat	gtctgcgtgg	agttttcact	1500
cttggagaagt	gccatcggat	gcattggaggc	caaccaggct	ggtgattagt	aactaaagca	1560
tatgctgtgg	aacatccagc	actgatgccca	gattacctgt	ccctaatact	gagcagaagc	1620
tggtgaatga	aacaggagat	ccctcagtca	aaacaaaaa			1659

<210> 25  
 <211> 1329  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (520)  
 <223> n equals a,t,g, or c  
 <220>  
 <221> SITE  
 <222> (1140)  
 <223> n equals a,t,g, or c

<400> 25						
tctgtctctc	tctctggaa	gcttgagac	ctcccttcag	aaaccaatccc	aagaagccac	60
ctatccggaa	caacacaagg	atgctgcggg	actggaagag	stccttgatc	ctcatggctt	120
acatcatcat	cttctcact	ggcctccctg	ccaacctcct	ggccttcggg	gcctttgtgg	180
ggcggatccg	ccagcccag	cctgcacctg	tgacatcct	cctgctgagc	ctgacgtggg	240
ccgactcctc	cctgctgctg	ctgctgccct	tcaagatcat	cgaggctcgg	tcgaacttcc	300
gctggtaact	gcccaaggtc	gtctgcggcc	tcacgagttt	tggsttctac	agcagcatct	360
actgcagcac	gtggctcctg	gcgggcctca	gcactgagcg	ctacctggga	gtggctttcc	420
ccgttcagta	caagctctcc	cgccggccct	tgatggagtg	gattgcagct	ctgggtggct	480
gggttatgtc	ctttggtcac	tgacacatcg	ggatcatcgn	tcaatacttg	aacacgactg	540
agcaggtcag	aagtggcaat	gaaattacct	gctacgagaa	cttcaccgat	aaaccagtgg	600
acgtgtgtct	gcccggtmgt	stggagctgt	cgctgggtgt	cttcttcata	cccattggcg	660
tcacatctct	ctgctactgg	cgttttgtgt	ggatcatgct	ctccccagcc	cttctggggg	720
cccagaggcg	gcgcgcagcg	gtggggctgg	ctgtggtgac	gctgctcaat	ttcctgggtg	780
gcttcggacc	ttacaacgtg	tcccacctgg	tggggtatca	ccagagaaaa	agccctctgt	840
ggcgggtcaat	agccgtgktg	ttcagttcac	ctaacgccag	cttggaaccc	ctgctcttct	900
atttctcttc	ttcagtggtg	cgcaggcgat	ttgggagagg	gctgcagggtg	ctgcggaatc	960
agggctcctc	cctgttggga	cgacagggca	aagacacagc	agaggggaca	aatgaggaca	1020
ggggtgtggg	tcaaggagaa	gggatgccaa	gttcggactt	cactacagag	tagcagtttc	1080
cctggacctt	cagaggctgc	ctgggttaca	caggagctgg	gaagcctggg	agagccggan	1140
caggaaagct	ccctccaga	ttcagaaaac	cttagaccca	gcccagagct	cgacctttga	1200
aaaaaatgcc	tttccacagg	ttggtatccc	ttcctgactg	aattgtccta	ctcaaggagg	1260
cataagtcag	agatgcacga	agaagtagtt	aggtatagaa	gcacctgcgg	gggtgtgggtg	1320
ctcatgcct						1329

<210> 26  
 <211> 700  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (81)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (659)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (692)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (700)  
 <223> n equals a,t,g, or c

<400> 26  
 ggcagagagc accatctgtc atggcggtctg ggctgttttg tttgagcgct cgcgcgtctt 60  
 tggcggtcagc ggcgacgcga ngggtctccc gccgcgcgcg tccgctggga atctagcttc 120  
 tccaggactg tggcgcccc gccgctgtg gcggraaagc ggccccaga accgaccaca 180  
 ccgtggcaag aggaccaga acccgaggac gaaaacttgt atgagaagaa cccgactctc 240  
 catggttatg acaaggaccc cgttttggac gtctgggaaca tgcgacttgt cttctctctt 300  
 ggctgtctca tcatctctgt cctttggcagc accttttgtg cctatctgcc tgactacagg 360  
 tgcacagggt gtccaagagc gtgggatggg atgaaagagt ggtcccgcgc cgaagctgag 420  
 aggccttgta aataccgaga ggccaatggc ctctccatca tggaaatcaa ctgctctgac 480  
 cccagcaaga tccagctgcc agaggatgag tgaccagtgt ctaagtgggg ctcaagaagc 540  
 accgccttcc ccaccctctg cctgccattc tgacctcttc tcagagcacc taattaaagg 600  
 ggctgaaagt ctgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 660  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa angggggggg 720

<210> 27  
 <211> 832  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (821)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (825)  
 <223> n equals a,t,g, or c

<400> 27  
 ggcacagact ccactcggtt tctctctttg caggagcacc ggcagcacca gtgtgtgagg 60  
 ggagcaggca ggggtcctag ccagtctcct gatcctgcc gaccaccagc ccctggcac 120  
 agactgtctc cacaggcacc atgaggatca tgcctgtatt cacagccatc ctggccttca 180  
 gctagcttca gagctttggg gctgtctgta aggagccaca ggaggagggt gtctctggcg 240  
 gggggccgag caagagggat ccagatctct accagctgtc ccagagactc ttcaaaaggc 300  
 actcattctt ggagggatgt ctcaaaagccc tgagccaggc tagcacagat cctaagggaat 360

caacatctcc	cgagaaacgt	gacatgcatg	acttctttgt	gggaacttatg	ggcaagagga	420
gcgtccagcc	agactctcct	acggatgtga	atcaagagaa	cgccccagc	tttggcatcc	480
tcaagtatcc	cccgagagca	gaatagggtac	tccacttccg	gactcttggga	ctgcattagg	540
aagacctctt	tccctgtccc	aatccccagg	tgcgcacgct	cctgttacc	tttctcttcc	600
ctgttcttct	aacattcttg	tgctttgact	ccctctccat	cttttctacc	tgaccttgg	660
gtggaaactg	catagtgaat	atccccaaac	ccaatgggca	ttgactgtag	aataccctag	720
agtttccgtg	gtgtccctca	ttaaaaaat	aattgtctct	cttattctcc	aaacaataag	780
gatttttgcg	tatgaaaaaa	aaaaaaaaaa	aaaaaaaaaa	naaaaaaaa	aa	832

&lt;210&gt; 28

&lt;211&gt; 2361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2361)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 28

ggcacgagcc	tccctaagcg	gttgtaccg	ctggagacgg	ttgggagaa	cgttgtgtggc	60
agcgctacac	gaggcaaacg	acttctccct	tctttgaact	ggaccccgcg	agcacagag	120
ctggcgtaac	tatcgcttga	caggcattta	aatcaaacgg	tattgagatg	gattgggtta	180
tgaaacataa	tggtcccaaat	gacgctatga	tgggacagta	cgacttctgt	gactaccatt	240
tggttgcagc	aaagaggaaa	tagttcagtt	ctttcaagg	ttggaaatcg	tgccaatggg	300
ataacattga	cgatggacta	ccaggggaga	agcacagggg	aggccttctg	gcagtttgt	360
tcaaaaggaga	tagcagaaaa	tgctctgggg	aaacacaaag	aaagaatatg	gcacaggtat	420
attgagattc	tcagaagtag	caggagtga	atcaaaaggt	tttatgatcc	accaagaaga	480
ttgctgggac	agcgaccggg	accatatgat	agaccaatag	gagggaagg	gggttattat	540
ggagctgggc	ttgggaagt	gtatgacaga	atgcgacgag	gaggtgatg	atatgatggt	600
gggttatggg	gttttgatga	ctatggtggc	tataataa	acggctatg	gaatgatggc	660
tttgatgaca	gaatggagaa	tggaagagg	atggcgaggac	atggctatgg	tggagctgg	720
gatgcaagtt	cagggtttca	tggtggtcat	ttctgacata	tgagaggggt	gcctttctgt	780
gcaactgaaa	atgacattgc	taatttcttc	tcaccactaa	atccaatacg	agtttcatat	840
gatattggag	ctgatggcag	agcacaggag	aagcagatgt	agagtttgtg	acacatgaag	900
ctgcagtagc	tgccattgtc	aaagataaaa	ataacatgca	acatcgatat	attgaaactct	960
tatgtgaatt	tactctctga	ggcgctctgc	gcattgggag	ttctggaaatg	ggagctctacg	1020
gaagagatgg	aattggataat	caggggaggt	atggatcagt	tggaagaatg	ggaatgggga	1080
acaattacag	tgaggagata	ggtaactcctg	atggtttggg	tggtttatggc	cgtgggtggg	1140
gaggcagtg	aggtttactat	gggcaaggcg	gcattgagtg	aggtggatgg	cgtgggatgt	1200
actgaaagag	aaaacaccaa	catacaagtc	ttgacaacag	catctgggtc	gtgaggtttc	1260
cttacagatt	taatttcttc	tgatttttaa	gaactttata	atgactgaag	gaatgtgttt	1320
tcaaaaata	atttgggttaa	gcaacagatt	gtgatgggaa	aattgtttct	gtaggtttat	1380
ttgtgtgata	cttttgactta	aaaaataa	tttatattca	aaccactgat	gttgataact	1440
tttatatact	aggtactctc	aaagatgtgc	tgcttccata	agattttggg	gtgatttatt	1500
tactatttag	tctacaagaa	gtagtgtgtg	gtaattttat	aggataaatg	ttcacctctg	1560
ctgcaaaactg	aagtctttaag	cagacatctg	gaatagagct	tgacaataaa	ttaggtgtaac	1620
ttttttcttt	agttctctct	ggacaacact	gtaaatataa	agcctaaaga	tgaggtggct	1680
tcaggagtat	aaattcagct	aattattttc	atatattatt	ttttcaaatg	tcattttatca	1740
ggcaatgctc	tgaaaacatg	atgatctaag	aggatttgat	ttctgaaat	tcataaatgt	1800
gttacctggg	tatgagagt	ttgggaagctg	aattctagcc	ctagattttg	gagtaaaacc	1860
ccttcagcac	ttgacgcgaa	taccaaaaat	gcttccaaaa	aattgatatt	tgacagttat	1920
cgcagagtgt	cttagagtga	gggttaaggt	ctcagtgaca	caagaattca	gtattaagta	1980
cttaggtatt	tactattggg	tataattctc	acaatttgat	tttcagtttt	ctgcccataa	2040
gagttttaa	aactgtataa	atgatgact	taaaaaaatg	taagcaacaa	gtccatgtca	2100
ttgtcaataa	aaaacaactc	gcagttgggt	ttgtattctg	atccctgtgt	ggagttttag	2160
tttaaaagat	ctatatgtag	caaggaaaa	gtgcttttta	attttaatcc	ctttgatcaa	2220

tatggtcttt	ttccaaattg	gctaatggat	caaaatgaaa	cctgttgatg	tgaattcagt	2280
tattgaactt	gttacttgtt	tttgccagaa	atgttattaa	taaatgtcaa	tgtgggagat	2340
aataaaaaaa	aaaaaaaaa	n				2361

&lt;210&gt; 29

&lt;211&gt; 879

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 29

ggaatctgca	ccatgcccgt	gggtctgtct	ctctgaccc	tctcactca	ctctgcagtg	60
tcagtggtcc	aggcagggt	gactcagccc	cctcggtgt	ccaaggactt	gagacagacc	120
gccacactca	cotgcaccgg	gaaccaaca	aatgttggcg	accaaggagc	agcttggctg	180
cagcagcacc	agggccacc	tcccacaact	ctgtcttaca	ggaataataa	ccggccctca	240
gggatctcag	agagattatc	tgcatccagg	tcaggagcca	catctccct	gaccattact	300
ggactccagc	ctgaggacga	ggctgactat	tactgcgcag	catatgacag	cagctctcga	360
gtttggtgtg	tcggcggagg	gaccaagctg	accgtctctg	ctcagcccaa	ggctgcctcc	420
tcgtctcact	tgttcccacc	ctctctgtag	gagcttcaag	ccaacaaggc	cacactgggtg	480
tgtctctaaa	gtgactctta	cccgggagcc	gtgacagtgg	cctggaaggc	agatagcagc	540
cccgctcaag	cgggagtggg	gaccaccaca	ccctccaaac	agagcaacaa	caagtacgcg	600
gccagcagct	acctgagcct	gacgcctgag	cagtgggaag	cccacagaag	ctacagctgc	660
caggtccagc	atgaaggagg	caccgtggag	aagacgggtg	cccctacaga	atgttctcat	720
gttcccaact	ctaacccccc	ccacgggagc	ctggagctgc	aggatcccaa	gggaggggtc	780
tctctcccca	tcccaagtca	tccagccctt	ctccctgcac	tcattgaaac	ccaataaata	840
ttctctattg	caatcagaaa	aaaaaaaaa	aaaaaaaaa			879

&lt;210&gt; 30

&lt;211&gt; 1732

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 30

ggtcggagg	aaacgtgtat	tgtggtctca	agmmttgcc	cawattaacc	tgtgccttcc	60
gactctctgt	tcagatttcc	tgtgtccggg	tatgcaggag	agatggagaa	ctgtcatggg	120
aaactcttga	tggatgatca	tccggcaac	ctgcccaacg	agaagcaaga	catctctacc	180
accgctctca	ctatgatctc	ccaccaagcc	gacaggctgg	aggctctgtc	cgcttctcgt	240
ggggccaaag	tcaccggggg	gctcttatgg	attcccagca	agcatcagga	accattgtgc	300
aaattgtcat	caataacaaa	cacaagcatg	gacaagtgtg	tgtttccaat	ggaaaagacct	360
atctctatgt	cgagtctctg	cacccaaacc	tccgggcatt	tggcatctgt	gagtgtgtgc	420
tatgtactgt	taatgtcacc	aagcaagagt	gtaaagaaat	ccactgcctc	aatcgatacc	480
cctgcaagta	tcttcaaaaa	atagacggaa	aatgctgcga	gggtgtgtcc	gaagaaacttc	540
caggccaaag	ctttgcacaat	aaaggctact	tctgcgggga	agaaacagtg	ctctgtgtatg	600
agtctgtatt	catggaggat	ggggagacaa	ccagaaaaat	agcactggag	actgagagac	660
caactcaggt	agaggtccac	gtttggacta	ttcgaaaagg	cattctccag	caactccata	720
ttgagaagat	ctccaagagg	atgtttgagg	agcttctcca	cttcaagctg	gtgaccagaa	780
caaccctgag	ccagtggagg	atcttccacc	aaggagaagc	tcagatcagc	cagatgtgtt	840
caagtctgtg	atgcagaaac	gagcttgaag	atttagtcaa	ggttttgtac	ctggagagat	900
ctgaaaaagg	ccactgttag	gcaagacaga	cagttattgga	tagggtaaa	caagaaaaact	960
caagctgcag	ctggactgca	ggcttatctt	gcttaagtca	acagtgcctc	aaaaactcca	1020
actcaaatgc	agtcgaattt	tcacgccatg	cacagcataa	tttgtctctt	tgtgtgtgtg	1080
aggtgtgtgt	tgtgtgtgtg	tgtgtgtgtg	ggggtaaaag	gttatgcggc	tgctccctcc	1140
gtcccagagg	tggcagtgat	tccataatgt	ggagactagt	aactagatcc	taaggcaaaa	1200
aaaggtttct	ctctctggat	gattcatccc	aaggccttcc	caccaggtgt	ctctctgaaa	1260
gcttagcctt	aagagaacac	gcagagagtt	tccttagata	tactcctgct	ccaaggttgt	1320
gggacacacc	tttgcaaaat	gctgtgggaa	gggagagctg	ttcagctcag	ttcagctcag	1380
gtagaacc	tccagtgttt	gggtgtgtgt	agagaatagg	acatagggta	aagagggcaa	1440

gctgcctgtga	gttagtagag	aagaatggat	gtgggtctctc	ttgtgtatctt	atattgtatca	1500
taaacactctg	gaacaaacaaa	gaccataagc	atcattttagc	agttgttagcc	atttcttagt	1560
taactcatgt	aaacaagtaa	gagtaacata	acagttattac	cctttcactg	ttctcacagg	1620
acatgtacct	aattatggca	cttattttatg	tagtcactgt	atttctggat	ttttaaatca	1680
ataaaaaagt	taattttgaa	aaatcaaaaa	aaaaaaaaaa	aaaaaaactc	ga	1732

&lt;210&gt; 31

&lt;211&gt; 3259

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 31

tttgactgac	gggcccggatt	tcccggggtcg	accacgcgt	cgcggaggc	tacgtgaaga	60
gaggcgcggc	gtgactgagc	tacgggttctg	gctgcgtcct	agaggcatcc	ggggcagtaa	120
aaacgctgcg	atcgcggagg	cggcggccag	gcgcgagggc	agggcgggca	gggggtgtcgg	180
acgcaggggc	ctggggccggg	tttcgggtctc	ggccacagct	ttttttctca	aggtgcaatg	240
aaagcctctc	acactttctg	tggtgtctct	ctgggtgttg	ggagtgtctc	tgaagccaag	300
tttgatgatt	ttgaggatga	ggaggacata	gtagagtatg	atgataatga	cttcgcgtgaa	360
tttgaggatg	tcattggaaga	ctctgttact	gaattctctc	aacgggtcat	aatcactgaa	420
gatgatgaag	atgagaccac	tgtggagtgtg	gaagggcagg	atgaaaacca	agaaggagat	480
tttgaagatg	cagataccca	ggaggggagat	actgagagtg	aaccataatga	tgatgaagaa	540
tttgaagatt	atgaagacaa	accagatact	tcttctagca	aaaataaaga	cccaataaacg	600
attgttgatg	ttcctgcaca	cctccagaac	agctgggaga	gtttattatc	agaaattttg	660
atggtgactg	gtctgtctgc	ttatatcatg	aattacatca	ttgggaagaa	taaaaacagt	720
cgctctgcac	agggctgggt	taacactcat	agggagcttt	tggagagcaa	ctttacttta	780
gtgggggatg	atggaaactaa	caaagaagcc	acaagcacag	gaaagtgtga	ccaggagaa	840
gagcacatct	ataacctgtg	gtgttctgtg	cgaagtgtgt	gtgagggcat	gcttatccag	900
ctgcagcttc	tcaagagaca	agacttactg	aatgtctctg	cccggtgatg	gaggccagtg	960
atgtatcaag	tgcataataa	agtaaccatg	aatgatgaag	acatggatac	ctacgtattt	1020
gctgttgcca	ccgggaaagc	cttgggtgca	ctacagaaag	agatgcagga	tttgagttag	1080
ttttgttagt	ataaacctaa	gtctggagca	aagtatggac	tgccggactc	tttggccatc	1140
ctgtcagaga	tgggagaagt	cacagacgga	atgatggata	caaaagtgtg	tcactttctt	1200
acacactatg	ctgacaaagt	tgaattctgt	catctttcag	accagttctc	tggtccaaaa	1260
attatgcaag	aggaaggtca	gcctttaaag	ctacttgaca	ctaagaggac	actgtgtgtt	1320
acatttaagt	tgccctggctc	aggttaacac	taccocaaag	atatggaggc	actgctaccc	1380
ctgatgaaca	tggtgatatta	ttctattgat	aaagccaaaa	agttccgact	caacagagaa	1440
ggcaaacaaa	aagcagataa	gaaccgtgcc	cgagtgaag	agaactctct	gaacactgaca	1500
catgtgcaaa	gacaggaagc	agcacagtct	cggcgggagg	agaaaaaaag	agcagagaa	1560
gagcgaattca	tgaattgagga	agatcctgag	aaacagcgca	ggcgtggagg	ggctgcattg	1620
agggctgagc	aaaagaagt	ggaaaaagag	caaatgaaaa	tgaacacaa	caaatgaaaa	1680
gcccatgtaa	agccatccca	gagatttgag	tcttgatgac	acctgtgaag	ttgcgaattca	1740
caggaaaacat	gaaaaacgac	agtcattctc	tcaaccttaa	atttcagaca	gtcttgggca	1800
actgagaact	ccttatttca	tcattctact	ttgttggggt	ttgggtttta	cagagattga	1860
agataacctgg	aaagggtctt	gtttccaaaga	attttttttt	ccagataatc	aaattatttt	1920
gattatttcta	taaaaagga	gatcatgaa	atctgtgtag	gttttaaat	ttttaaaat	1980
tataatacaaa	atcatcagtg	cttttagtac	ttcagtggtt	aaagaataac	cggtgaaatt	2040
ataggttagat	aaccagattg	ttgctttttg	tttaaaccaa	gcagtgtgaa	tggtcatata	2100
gactgactct	aaaccaagat	ttgtggaata	atgattggaa	ttgcacataa	aactatgctt	2160
gatgttttct	attttcaggga	ccagaaacat	aatgtagtgt	atgtttttat	gtggggagatg	2220
ctgataacaa	aatttaattg	aagtctgtag	ctcttaggat	actgacatgt	acatggaaaa	2280
ttctagggaac	aggagcatca	ttttttctct	acctgatacc	acgaaccagt	gacacagtga	2340
atgtctgatt	tttaagtggtt	gtatgtttat	ttcttggagt	aacaaaatga	tgaaaaatca	2400
atgcttccacc	taggttaagt	cattggtctg	tgtgaaatca	caaatgtttt	ttctctcttg	2460
gtgtctgcag	cctgttggtg	gttcatggag	aagctctgtt	ctctatatata	tgctgtgtgtg	2520
ccgtgtctct	tcctctctgt	tttatctttt	ccacagtgtg	ggctgggtat	gttctttcaa	2580
agaaatggcc	atgaatatgt	tgaagtatac	ttttgaaat	gagctttctc	aacctattga	2640
gagttctttc	cacctcttgc	ggaaccaact	cttggaggag	aggcccatgt	atctgcacga	2700



gcacttagct	tggtcagatc	tctgcatttt	ataaatgctt	cttaccaaga	aagcattttt	2760
aggctattgc	ttgtaccagg	taatttttgc	cggggatggg	taagggttgg	gttttctggt	2820
gggagtgggg	tggtgggtat	tttttgttga	tgcttttagt	caggcctgtt	ctgaggccaat	2880
aacaagtgtc	tgtagaaacg	catgtgctgc	tgccctttgt	actgccatgg	aaacttttca	2940
catgggtttt	tctccaagtt	aatacagaaa	tatgtaaact	gagagatgca	aatgtaatat	3000
ttttaacagt	tcattgaagt	gtttattaaa	taactaacat	aaaacttaat	tacttttaata	3060
ttatataatt	atagtagtgg	ccttggttta	caaaccttta	aattacattt	tagaaatcaa	3120
agtgtagatg	cttagttatc	ttttgagtaa	gaaaagcttt	cctaaagtcc	catacatttg	3180
gacctggcga	gctaattttg	taacttaagc	attcatatga	actacctatg	gacatctatt	3240
aaagtgtatt	acaaaaaaa					3259

&lt;210&gt; 32

&lt;211&gt; 454

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

ggcacgaggt	cttgtctgct	aagagtttac	gaggtttcac	ccactccttc	attcttgaac	60
atgctttttc	tctgcttatt	accctccctg	ttctctcctg	ggctgccaac	aacacattat	120
attacctcca	tctgcaacca	gagctgctac	caccactgtg	cccgagcctg	aattttcata	180
gttatattaa	aaaaaatcaa	ggtgctggga	ttacaggcgt	gagccaccgc	gcccggtgtg	240
agccctctgc	tttattcttc	ccctgtctaa	cccgctcctca	gcgatgaatc	cagagttacc	300
tcttaawta	tgtcaggggt	ctaggcacag	tggctcatgc	ctgtaatccc	agctcttggg	360
aaggcagagg	caggaggaca	amttgagccc	aggagtttga	gacctgcttg	gggaatgtag	420
tgagaccctg	ttctccacaa	aaaggaaaaa	aaaa			454

&lt;210&gt; 33

&lt;211&gt; 230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (219)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 33

gctgctatgg	ctgaactttt	attgancgtg	ttgtctgtgc	agagcgctgt	gcacgaggtg	60
gaagcaaacg	agggaggaaa	acaaagccac	acccctgcgc	acagaggatg	gaacagaagg	120
gccgtctagg	tcaggaaggc	aaggttgcca	ctggtgttta	ctgtggggcc	cagatgccgc	180
catgctgttc	acccttcaaa	gggtggcatc	tcagcccang	cagtcctctc		230

&lt;210&gt; 34

&lt;211&gt; 753

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

ggcacgagga	aaggctggcc	tctcttcaac	atgggattct	ctggactttt	gagcctcctg	60
gtgctattcg	tctctttagc	gaatgtccag	ggacctggct	tgactgattg	gttattttcc	120

aggagatgtc	ccaaaatcag	agaagaatgt	gaattccaag	aaagggatgt	gtgtacaaaag	180
gacagacaat	gccaggacaa	caagaagtgt	tgtgtcttca	gctgcggaaa	aaaaatgttta	240
gatctcaaac	aagatgtatg	cgaaatgcca	aaagaaaactg	gcccctggcct	ggcttattttt	300
cttcattggt	ggtatgacaa	gaagataaat	acttgctcca	tgtttgtcta	tggtggctgcg	360
cagggaacaa	ataacaact	ccaatccaaa	gccaaactg	tgaaacactg	caagaataaaa	420
cgctttccct	gattggataa	ggatgcactg	gaagaactgc	cagaatgtgg	ctcatgctct	480
gagtaactgt	cctgtacctg	actgatgctc	cagactggct	tccagtttca	ctctcagcat	540
tccaagatct	tagcccttcc	cagaacagaa	cgcttgcatc	tacctcctct	tcctccatct	600
ttggctcttt	tgatgcacaa	tatccatccg	ttttgatttc	atctttatgt	cccttttate	660
tccaacttct	agaactccca	gtttatacct	gtgtcaactct	caattttttc	cagtaaaagta	720
cttgatgtag	taaaaaaaaa	aaaaaaaaaa	aaa			753

&lt;210&gt; 35

&lt;211&gt; 1022

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 35

cgctcctgcc	gcggggacc	tcgacctcct	cagagcagcc	ggctgcggcc	ccgggaagat	60
ggcgaggagg	agccggcacc	gcctcctcct	gctgctgctg	cgctacctgg	tggtgcgcct	120
gggctatcat	aaggccctatg	ggttttctgc	cccaaaagac	caacaagttag	tcacagcagt	180
agwgtaccaa	gaggctattt	tagcctgcac	aaacccaaaag	aagactgttt	scctccagatt	240
agagtggaa	aaaactgggtc	ggagtgtctc	ctttgtctac	tatcaacaga	ctcttcaagg	300
tgatcttaaa	aatcgagctg	agatgataga	tttcaatctc	cggatcaaaa	atgtgacaa	360
aagtgatgag	gggaaatctc	gtgtggaagt	tagtgcccca	tctgagcaag	gccaaaacct	420
ggaagaggat	acagtcactc	tggaaagtatt	agtggctcca	cgagttccat	catgtgaagt	480
accctctctc	gctctgagtg	gaactgtggt	agagctacga	tgctcaagaca	aaagaaggaa	540
tccagctcct	gaatacacat	ggtttaaggga	tggcatccgt	ttgctagaaa	atccagact	600
tggtccocaa	agcaccacaa	gctcatcac	aataataaca	aaaactggaa	ctctgcaatt	660
taatactgtt	tccaaactgg	acactggaga	atatcctgt	gaagcccgca	attctgttgg	720
atatcgagg	tgctcctggga	aacgaatgca	agtagatgat	ctcaacataa	gtggcatcat	780
agcagccgta	gtagtgtgtg	ccttagtgat	ttcgtttgtg	ggccttggtg	tatgctatgc	840
tcagaggaaa	ggctactttt	caaaagaaac	ctcctccag	aagagtaatt	cttcatctaa	900
agccacgaca	atagtgtaaa	atgatttcaa	gcacacaaaa	tccctttataa	tttaataagct	960
ccactttaga	gatacaccaa	agccaccgtt	gttacacaa	ttattaaact	attataaaa	1020
tc						1022

&lt;210&gt; 36

&lt;211&gt; 3044

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2383)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 36

ctctaagaac	ctagtggatc	cccccgccct	gcaggaaatc	gggcacgagg	ggagactgct	60
gtggctaaag	agggcgggaa	gggcctctct	tggggctgcc	atttttggtg	ggacctaaat	120
gcagtaaaag	agcagctacg	ggaatataga	gagtggggct	tccaggcaga	gaagcctgca	180
gtgcaaaagt	ctgcagacaa	cgacctgggc	gttctcaagg	gacacaagga	atcatattgc	240
cagaacacat	tgtacaggta	gccaggtgtc	gtctccagc	ctgagaactc	tggtgtttgt	300
tccttgtgtc	gtcccatatt	cctgcctggc	ctgcgatgga	catcagcaag	ggcctcccag	360
gcctgcaggg	agggcctcac	atatggtatc	ctgagaaccc	gaagatgtgtg	ccggtaccgg	420
agggggctta	cgggaacttt	ttcagggaac	actgctatgt	catcctccac	gtcccccaga	480

```

gcccgaaaggy cagcgagggg ggcgtccagcg acctgcacta ctgggtcggg aagcaggcggg 540
gtgcggaagc gcaggggcgt gcggaggcct tccagcagcg cctacaggag gactcggggg 600
gccagacogt gctgcacgcg gaaggcgagg gccacgagtc cgactgcttc tgcagctact 660
tccgcccggg aatcatctac aggaaggagg gcctagcatt tgacctcaag catgtggaga 720
ccaacttggt caacatccag cgactgctgc acatcaaaag gaggaaagac gtgtctgcc 780
ctgagggtgga gctctcctgg aacagcttta ataagggtga catcttctcg ctggacctag 840
gcaagatgat gatcagttgg aatgggcccc agaccagcat ttctgagaag gctcgggggg 900
tgggtctgac ctacagcctc cgggacaggg aacgtggtgg tggctgtgca cagatgtggtg 960
tgggtggatga tgagggccaa gcccggaacc tcatgcagat catggaggct gtgctggggc 1020
gcagggtggg cagmctgcgt gccgccaacgc ccagcaagga tatcaaccag ctgcagaagg 1080
ccaatgttgc cctgtaccat gtctatgaga agggcaagga cctgggtggtc ctggagcttgg 1140
cgaccccccc actgaccacc gacctgctgc agggaggaga cttctacatc ctggagctgg 1200
gtggcctcaa gatctatgtg tggcagggac gcattgtctag cctccaggag agaaaggctg 1260
ccttcaggcg ggcgtggggc ttcatccagg ccaagggtca cccgacctac accaacgtgg 1320
aggtggtgaa cgacggcgcc gagtgcggcg cgttcaagca gctcttcggg acttgggtctg 1380
agaaagcgcg caggaaccag aagctcggcg ggagggataa atcgattcat gtaaagctgg 1440
acgtgggcaa gctgcacacc cagcctaagt tagcgggcca gctcaggatg gtggacgacg 1500
gctctgggaa ggtggagggt tgggtgcattc aggaacttaca caggcagccc gtggaccccc 1560
agcgtcagtg acagctgtgt gcaggcaact gctaccttgt gctctacaca taccagagggc 1620
tgggcccgtgt ccagttacatc ctgtacctat ggcaggggcca ccaggctgag cgggatgaga 1680
tggaggccctt gaacagcaac gctgaggaaac tagatgtcat gtatgtggcg gctctagtac 1740
aggaagcatgt gacctggggc agcgaggccc cccacttctt cgccatcttc caggcgccagc 1800
tgggtgatctt ccaggagaga gctgggcacc acggaaaggg gcagtcagca tccaccacaa 1860
ggctctttcca agtgcaaggc actgacagcc acaaccacag gacctggag gtgccagccc 1920
gtgctccatc cctcaactcc agtgacattc tcttgtctgt cacagccagc ctgggctacc 1980
tctggtttga gaagggctgt aatggtgatc agcgtgagat ggcacgggtg gtggtcactg 2040
tcattttccag gaagaatgag gaaacggtgc tggagggtca ggagcctccc cacttctggg 2100
agggcctggg aggcgggggc cctaccccca gcaacaagag gctccctgag gaggtcccca 2160
gcttccagcc acgactgttt gagtgtctcca gccacatggg ctgcctggtc ctgcagaag 2220
tggggttctt cagccaggag gacctggaca agtatgacat catgttactg gacacctggc 2280
aggagatctt cctgtggctt ggggaagctg caagtgtgtg gaaggaggcg gtggcctggg 2340
gccaggagta cctgaagact caccacagag ggaggagccc ggncaacccc atcgtgctgg 2400
tcaagcaggg ccattgagct cccaccttca ttggatggtt cttcacttgg gaccctaca 2460
agtggactag ccacccatcc cacaaggaag tgggtgattg cagcccgcca gcagcatcaa 2520
ccatctctga gataacagca gaagtcaaca acttccgggt cctcagatgg ccggggcaatg 2580
gcaggcgagg tgccgtggcc ctgcaggccc tcaagggtc caggagacag tcagagaatg 2640
atctggtgag aagccccaa gtcggctggca gcagaaccag cagctccgtc agcagaccca 2700
gcgcacagat caacgggggc ctgcgcgggg aacaactgat gcacccaggtc gtgaggacct 2760
tgccagaggg cgtggaccct gccgcaggg agttctatct ctacagactc gacttccaag 2820
atatcttttg gaaatccaag gaggaaattc acagcatggc cagctggagg cagcgccagg 2880
agaaaaggca cgtgggcttc ttctgaaccc aagccctctc gactgcccct atccccggga 2940
ccccacata cctacaatgc tggggaggcc ctgcttccac tcccctcaga ggccttttgg 3000
catcctctgc gtgtcagtaa aagcaggcgag cccataaaaa aaaa 3044

```

```

<210> 37
<211> 541
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (420)
<223> n equals a,t,g, or c

```

```

<220>
<221> SITE
<222> (486)

```

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (530)

<223> n equals a,t,g, or c

<400> 37

ttcaaggatt	ataatatgct	gagtaaactt	ttggcactaa	ggaagccagc	tacaggccac	60
gtaatgaaaa	ctattcagaa	aacagttcag	caaatactac	tatttgaata	cagttcgaat	120
cgtatttata	taaatactct	gcctacatta	tttaacccaa	actggattat	taccattctt	180
ttgaagatgc	cttgtgtttt	ctgttatcta	cttcgtctcg	tgacagttaa	ttacaccttc	240
accctttcaa	atcctaactc	ttcttcaagg	cttgattcag	attttaactt	tttaaaggct	300
atctgaatca	ttcaaggagg	aagataacct	ttctctcata	aaaacactta	gagcaaaacta	360
ccactattaa	atcacttatt	gcatactgaa	aaaaaaaaaa	aaaaaaaaac	gaaggggggn	420
ccgggtaccca	attcgcccta	tagtgagtcg	tattacaatt	cactggggcg	tcgttttaca	480
acgtcntgac	tgggaaaaacc	ctggcgcttac	ccaacttaat	cgccttgcan	cacatcccccc	540
t						541

<210> 38

<211> 1752

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (356)

<223> n equals a,t,g, or c

<400> 38

gtcggcgccg	gcgccggcgg	ttgaactgac	tcggagcgag	gagaccggag	cgagcagacg	60
cggccctggc	gccgcgccct	cgcactcacc	atggcgatgc	atttcatctt	ctcagataca	120
gcgggtgcttc	tgtttgtatt	ctggagtgct	cacagtcctg	ctggcatggc	cttttcgggtg	180
ttgggtgcttc	tgcttctggc	tgtactgtat	gaaggcatca	aggttggcaa	agcgaagctgc	240
tcaaccagggt	actgggtgaac	ctgccaaact	ccatcagcca	gcagaccatc	gcagagacag	300
acgggggactc	tgccaggctca	gattcattcc	ctgttggcag	aacccaccac	aggtgntatt	360
tggtgcacctt	tggccagctct	ctaattccatg	tcattccagg	ggctcatcgc	tacttcatca	420
tgcttggcgtt	aatgtctctac	aacacactgga	ttttctcttg	tggtggtctg	ggctctgctg	480
tggggctacta	ctcagctttac	ccactctctca	gcacagctta	gctgggtgagg	aacgtgcagg	540
cactgaggctt	ggagggacat	ggagccccct	cttcagacac	ctataacttcc	aactgcctct	600
ttctctgatg	gctattcctc	cacottattc	ccagccctct	gaaactttga	gctgaagcca	660
gcactttgctc	ctctgagttc	ggaagccatt	gcagcaacct	tccttctcag	ccagcctaca	720
tagggcccgag	gcattggtctt	gtgtcttaag	acagctgctg	tgacaaaagg	gagaatggag	780
ataacggagg	tggcagggttt	actgagccca	tgacaatgct	tcctgtgtac	tcaaacccagg	840
aatttccaaa	gatttcaagg	caggggagaag	ggttcttgtt	gatgcagggc	atgggaacct	900
gacaccctca	gctctcctgc	tttgtgcctt	attctacagg	gcattcgcca	ttggactctc	960
tgactctctc	tgctcttgag	ggacagagac	caagctagat	cttttttctc	accttttctc	1020
ctttgggaaca	catgaagatc	atctcgtcta	tggtatcatg	tgacaaaacta	agtttttttt	1080
atttttccca	ttgaactcct	agtttggcaat	tttgacattt	catacaaaaa	aatttttttt	1140
gaaatgattt	cattgattca	tgatggatgg	caaaaactgc	tgagacctat	tttccctttc	1200
tggggagaga	ataagtgaac	gctgatttaa	ggcagagaca	caggactctg	ttcaggtctc	1260
tggtttattc	tctgatagac	tgagctcctt	ccaccagaa	gcactgcctg	caggaagaag	1320
awgatctgat	ggcgtgggtt	gtctgggaag	ctcttctgtg	cctcaatgac	ctctttatc	1380
ctcatctctc	ttctatgcag	aacaaaaagc	tgcatctaat	aatgttcaat	acttaatat	1440
ctcatattat	tacttactgc	ttactcgtaa	tgatctagtg	gggaaacatg	attcatctac	1500
ttaaaatact	gattaaagca	tggcagggtac	tgactgaaga	tgcaatccaa	ccaaagccat	1560
tacatttttt	gagtttagatg	ggactstctg	gatagttgaa	ctctttcact	ttataaaaaa	1620

ggaagagag	aaaatcactg	ctgtatacta	aatacctcac	agattagatg	aaaagatgggt	1680
tgtaagcttt	gggaataaaa	aacaacaaa	tacatttttag	taaataata	tttttaata	1740
aaaaaaagaa	aa					1752

&lt;210&gt; 39

&lt;211&gt; 1907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 39

agttcagggg	cacaggggca	caggcccacg	actgcagcgg	gatggaccag	tactgcatcc	60
tgggccgcat	cggggagggc	gcccammgga	tcgtcttcaa	ggccaagcac	gtggagatcg	120
gcgagatagt	tgccctcaag	aaggtggccc	taaggcggtt	ggaagacggc	ttccctaacc	180
aggccctcgg	ggagattaag	gctctgcagg	aratggagga	caatcagtat	gtgttacaac	240
tgaaggctgt	gttcccacac	ggtggaggct	ttgtgctggc	ctttgagttc	atgctgtcgg	300
atctggcgca	ggtggtgcgc	catgccacga	ggccactagc	ccaggcacag	gtcaagagct	360
acctgcagat	gctgctcaag	ggtgtcgcct	tctgccatgc	caacaacatt	gtacatcggg	420
acctgaaac	tgccaacctc	ctcatcacgc	cctcaggcca	gctcaagata	gcggactttg	480
gcctggctcg	agtccttttc	ccagacggca	gccgcctcta	cacacaccag	gtggccacca	540
ggagctcact	gagctgccgg	actacaacaa	gatctccttt	aaggagcagg	tgcccattgcc	600
cctggaggag	gtgctgcctg	acgtctctcc	ccaggcattg	gatctgctgg	gtcaattcct	660
ttcttaccct	ctccaccagg	gcacgcagcg	ttccaaggct	ctctccatc	agtaactctt	720
cacagctccc	ctgcctgcgc	atccatctga	gctgcgcgat	cctcagcgct	ttgggggacc	780
tgcccccaag	gcccattccg	ggccccccca	catccatgac	ttccacgtgg	accggcctct	840
tgaggagctg	ctgttgaaac	cagagctgat	tcggcccttc	atcctggagg	ggtgagaagt	900
tgccctcggt	cccgctcgcc	tgctctccag	gaccactcag	tcacactgtt	ccctctgccac	960
ctgcctggct	tcacctccca	aggcctcccc	atggccacag	tgggccacca	ccacacccctg	1020
ccccctagcc	cttcgcgagt	ttggtctcga	ggcagaggtc	atgttcccag	ccaagagtat	1080
gagaacatcc	atgcagcagc	aggagattca	tgccctgtgc	tcggtgagcc	ttacctctctg	1140
tgtagctact	acgtaccatc	caggacagtg	agytctgctg	ccagtcagg	cctgcattatg	1200
caagaatgac	atgcctgcct	tggtgctgct	tcgccagtg	ctgcctcctg	gtcaaggaga	1260
agtgcagaga	gttaagggtc	cttatgttgg	aaactcaagt	ggaagggaag	tttggtttgg	1320
ttttattctc	agagccattc	aaactcagtg	cagtatgtga	gatatagatt	ctaaaaaacct	1380
caggttgctc	tgccctattg	ctgttctctc	ttcattttct	tcaggggaaa	tggtcaaggt	1440
ggcattgtct	catggctctc	gtttttgggg	tcattggggg	ggtagcccca	ggcatagcca	1500
ctttttgccc	gagggactcc	tggtgtcttc	acatcactga	gcactcattt	agaagtggag	1560
gagacagaag	tcaggcccca	gggattgctc	cagttgggga	tcacagcgga	gacctctgc	1620
acatgaggct	ggtttaccac	catctactcc	ctcaggatga	gcgtgagcca	gaagcagctg	1680
tgtatttaag	gaacaacagg	ttcctggaat	taattataaa	atttaataaa	ccaataata	1740
atccacgcta	gtgctttttc	cttatataaa	tttgataaag	tgattataaa	agatacatgg	1800
aagggaatgg	aaccagatgc	agaagaggaa	atgatggagg	gacttatggt	atcagataacc	1860
aatatttaaa	agtttgtata	ataataaaga	gtatgattgt	ggtttcaa		1907

&lt;210&gt; 40

&lt;211&gt; 2350

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 40

aaagaagagc	gacctgcctc	aatggatgac	agaaagcaca	aaattttag	catgtatgac	60
aacttaaggg	ggaaattgcc	tggaacaagag	aggcctatgt	atgaccactt	tgtaacagatc	120
atgtgtatcc	gaaaagggaa	gagaatgggt	gcccgatttc	ttcctttcct	ctccacagatg	180
caagcagctg	acattctcat	gacaacagcc	aggaacctcc	ctttccttat	caagaagagat	240
gcacaagatg	aggtgctcgc	atgtcttact	agtcctctct	ctctcctctt	ctatcatctt	300
ccatcagta	gtatccacac	ctttttcgca	cataatgaac	ctacctcaaa	gtgcagctact	360
accagcactc	tccaatcttc	acctcactgc	tggtctccag	aacaagtgtg	gctgtcact	420

gstcctcatc	ctcctgagcc	gtggtgaaga	cctacagagt	tcagaccctg	ctacagaatc	480
aacacaaaat	aactcagtga	cggaggtgat	gttcatggca	acacagagaac	ttctcgggat	540
cccccaagca	gccctggcca	agccaatctc	tatacctaca	aaactagtgt	ccctcttttc	600
tcgctatggt	gaccggcaga	aactgaacct	gctggagasa	aaactgcagc	tagttcaggg	660
gatacgataa	aagatctcca	aatgtgtcct	gtacctctt	ttggctgccca	cctgcactgc	720
tgccatcacc	aatggrrgtt	ttttaatgag	ggaagggaag	tagctttttc	ccccaaagca	780
agkmttgtgg	tgcgatcttc	tgtttacagg	gggtgtctct	ctaaatgtca	gatatttccc	840
cactgctcta	tgaattttgg	ctgggtgata	cttctgctgg	tttctttacc	ttctgtgtta	900
cagttctgca	tgtctacttt	ttactcagtt	ctgttttgca	tttwctttgc	cctagagaca	960
caagtgtaat	ctctcccttt	atccctccac	tactccacct	cagagtagat	tgtagcctgc	1020
caaaaggattc	cttccctcat	cctattgaag	tgttttttct	attgcccatc	attaatatga	1080
ctatagaaga	gccaaataa	tagaaatcaa	gatacacaca	cacacataga	tacacacaca	1140
cacacccccat	acatgtattt	atgtgggtct	cagaggggtc	ttaaagaatg	aatttttagt	1200
tgaaaaaatat	ttagtgtgtc	cattaccctc	tctaaacaca	aaccagctga	tgtatttttaa	1260
ttctgtttctg	ttctatcttg	taataaat	gggtgggtct	actgttttta	acataaataa	1320
agagatgca	gcacgtttaa	taaaatcaga	actcttaatt	ggcttatgcc	caggtctgaag	1380
ctgagaagtc	ctttttcttc	ttcccacctt	tatttctcta	gtttctgtcc	accttaatcg	1440
aaacaacaca	tgggttatgg	tttttctctg	tacaactaca	gggtacttga	gcctttccccc	1500
tcaagtgcac	tgaagtcac	ccaggatgat	cctcaactagt	agcctgcttt	ggcagtggtg	1560
ctttttgcac	acttgccttc	tttctctgag	actacttca	taagccatct	ttccttcttc	1620
cccatcttta	tttgggtgca	tgaatagaaa	cttccaaatg	taaccatgga	agctaagtgt	1680
ggcctgcttt	gctttttgat	ctccacacca	tggggcagaac	tgtgtctttt	actacttcat	1740
ctaccccaag	tcctgttccc	aggcagccar	ggggctgggt	tttgaataat	tgcgaaggcc	1800
agcctggatc	gatctttctc	acttactctt	ctcccattca	cgaatcaacc	agacttaagg	1860
gttttgatcc	ctagtgtata	cagccctgaa	gaaaaattaa	cttgaattaa	ttttacatga	1920
ctctctgtgat	ctttctgctg	ttcttacctt	ttcgaatgta	gttggggggg	gggggggaca	1980
gggttatggta	tttaagagga	ataaacattt	tgcacatata	tgtattgtac	acagctaaga	2040
ttctctgttta	aaacacagct	ttctgttctc	catctccatt	ttcttccatg	ctgtaacccc	2100
aggctccacc	agcgtgtccc	cagtgatggt	acctgacttc	ctctaccgtg	tgtctactga	2160
ccatttccac	tacatgcctt	tcttaccttc	cttccacac	caatcaagtg	aatacttgat	2220
tattatctct	tccttactgt	gctttatctt	ttttgtttgg	attggttcta	attaatgaaa	2280
ataaaagttt	ctaaatttac	atttttatag	ggtattgttaa	ataaaaaaaa	attgtatact	2340
taaaaaaaa						2350

<210> 41  
 <211> 1114  
 <212> DNA  
 <213> Homo sapiens

<400> 41						
gggcagacga	tgtcgaagat	gctctccttt	aagctgctgc	tgtctggcgt	ggctctgggc	60
ttctttgaag	gagatgctaa	gtttggggaa	agaaacgaag	ggagcgggaca	aggaggagaa	120
ggtgctgtgaa	tgggaacccc	ccgaagcgcc	tgaaaaggag	agacaggagag	atgatgtccc	180
agctggagctg	gctgagtggg	ggagagatgc	tgtgcggtgg	cttctaccct	cggtgtctct	240
ctgtcctcgc	gagtgacacg	ccggggctag	ggcgcttgga	gaataagata	ttttctgtta	300
ccaaacaacac	agaaatgggg	aagttactgg	aggaaatcaa	abtgacactt	tgtctctcac	360
attctcaaac	ctctgtccac	tcacctgaga	gagaagctct	tggaagagac	ctgactactc	420
ctctgctctg	caaagactat	tgcaaaagaat	tcttttacac	tgtccgaggc	catattccag	480
gtttctcttca	aaacaactgc	gatgagtttt	gcttttacta	tgcaagaaaa	gatgtgggtg	540
tgtgtctttcc	agatttttcca	agaaaacaag	tcagaggacc	agcatctaac	tactttggacc	600
agatggaaga	atatgacaaa	gtggaagaga	tcagcagaaa	gcacaaacac	aactgtctct	660
gtatttcagg	gggtgtgagtg	gggctgcggc	agcccgcttg	tgcctgtcat	agtggggagt	720
gctgcgaacg	ttctcttcat	ctggaaaaag	aaggttatgt	gaagataact	acctctgaag	780
gagaaaatttt	caaggagcct	tattttggaca	ttcacaaact	tgttcaaatg	ggaaataaag	840
ttgggtctttt	aaattttatt	tatttttgtg	ctggctacgt	taattttatt	ttagtgttac	900
cttctcactc	gaaggtattt	ctttgttaata	aaagaaagaa	tcttgcagga	gaaaataaag	960
gggcaacata	agaaacaata	attatggcag	ctgaattagg	acagtgacat	taaakgttgg	1020

ctktttawat tttaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1080  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1114

<210> 42  
 <211> 1652  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1640)  
 <223> n equals a,t,g, or c  
 <220>  
 <221> SITE  
 <222> (1644)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (1648)  
 <223> n equals a,t,g, or c

<400> 42  
 ttggcacctc taattgctct cgtgtattcg gtgcccgcac tttcacgatg gctcgcccaa 60  
 ccttactacc ttctgtcggc cctgctctct gctgccttcc tactcgtgag gaaactgcgc 120  
 ccgctctgcc accgtctgcc cacccaacgc gaagacggta acccgtgtga ctttgactgg 180  
 agagaagtgg agatccctgat gtttctcagt gccattgtga tgatgaagaa ccgcagatcc 240  
 atcactgtgg agcaacatcat agggcaacatt ttcattgtta gtaaaagtggc caacacaatt 300  
 cttttcttcc gcttggatat tgcgatgggc ctactttaca tcacactctg catagtgttc 360  
 ctgattgacgt gcaaaccccc cctatatatg ggcscctgagt atatcaagta cttcaatgat 420  
 aaaaccattg atgaggaact agaacgggac aagaggggtca cttggattgt ggagttcttt 480  
 gccaatgggt ctaattgactg ccaatcattt gccctatct atgctgacct ctcccttaaa 540  
 tacaactgta caggggctaaa ttttgggaag gtggatgttg gacgctatc tgatgttagt 600  
 acgggggtaca aagtgtgacac atcacccctc accaagcaac tccctaccct gatcctgttc 660  
 caaggtgtgca aggaggcaat gcggcggcca cagattgaca agaaaggacg ggcctgtctca 720  
 tggactctct ctgaggagaa tgtgatcoga gaatttaact taaatgagct ataccagcgg 780  
 gccagaagaa tatcaaaaggc tggagacaat atccctgagg agcagcctgt ggcctcaacc 840  
 cccaccacag tgtcagatgg ggaaaaacaag aaggataaat aagatcctca ctttggcagt 900  
 gcttcctctc ctgtcaattc caggctcttt ccataaccac aagcctgagg ctgcagcytt 960  
 ttatttatgt tttccctttg gctgtgactg ggtggggcag catgcagctt ctgatttttaa 1020  
 agaggcactc aggggaattgt caggcacctc acaggaaggc ctgccatgct gtggccaaact 1080  
 gtttcactgg agcaagaaaag agatctcata ggacggaggg ggaaatggtt tcctccaag 1140  
 cttgggttgg ttgtttaaact gcttatcagc tattcagaca tctccatggt ttctccatga 1200  
 aactctgtgg ttctcatcct ccttcttagt tgacctgcac agcttgggtta gacctagatt 1260  
 taaccctaag gtaagatgct ggggtataga acgctaagaa ttttcccccagg actccttg 1320  
 ctctcttaag ccctctctggc ttctgttaag gtcttcatta aaagtataag cctaactttg 1380  
 tcgtatgtcc taaggagaaa cctttaacca caaagttttt atcatagaag acaattatga 1440  
 acaacccctc attttgtggg gattgagaag ggggtgaatag aggcttgaga ctttcccttg 1500  
 tctgttagga cttggaggag aaatccctg gactttcact aaccctcga cactactccc 1560  
 accccagtt gatggcttcc cgttaataaa agattgggat ttccttttga aaaaaaaaaa 1620  
 aaaaaggggg ccgctctagn ggtncacngc tt 1652

<210> 43  
 <211> 1473  
 <212> DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 43

ggcacgagcc	gcggggctgt	cacctccgcc	tctgtcccc	gaccggcca	tgcggcgct	60
cgggctctgg	ctgctggcg	cgatgatgct	gcctgcgatt	gccccagcc	ggccctgggc	120
cctcatggag	cagtatgagg	tcgtgttgcc	gtggcgctgt	ccaggccccc	gagtcggcgc	180
agctctcgcc	tcccaactgg	gcctgcaccc	agagagggtg	agctacgttc	ttggggccac	240
agggcacaac	ttcaacctcc	acctgcggaa	gaacaggagc	ctgctgggct	ccggctacac	300
agagacatat	acggctgcc	atggctccga	ggtagcggag	cgcctctcgc	ggcaggacca	360
ctgctctac	caggggcaact	tagagggtac	cggactcagc	cgccagcctc	agcactgtgt	420
cggcctcag	gggtttcttc	cagggtgggt	cagacctgca	cctgatcgag	cccctggatg	480
aagggtggcg	gggaggagcg	cacgcccgtg	accagggtga	gcacctgctg	cagacggccg	540
ggacctgcgg	ggctcagcgac	gacagcctgg	gcagcctcct	gggaccccgc	acggcagccg	600
ttctcaggcc	tcggccccggg	gactctctgc	catcccagag	gacccgctac	gtggagctgt	660
atgtgtctgt	ggacaatgca	gagtctccaga	tgctggggag	cgaagcagcc	gtgcgtcatc	720
gggtgtctga	ggtggtgaat	cacgtggaca	agctatatca	gaaactcaac	ttccgtgtgg	780
tcctgtgggg	cctggagatt	tggaaatgct	aggacagggt	ccactgcagc	cccagcccca	840
gtgtcacact	ggagaacctc	ctgacctggc	aggcacggca	acggacacgg	cggcacctgc	900
atgacaacct	acagctcatc	acgggtgtgc	acttcacggg	gactactgtg	gggtttgcc	960
gggtgtccgc	catgtgtccc	cacagctcag	gggctgtgaa	ccaggaccac	agcaagaacc	1020
cgtgtggcgt	ggcctgcacc	atggcccatt	agatggggca	caactctggg	atggaccatg	1080
atgagaacct	ccagggtctc	cgctgccagg	aaacgctctg	aggccggcgc	ctgcataatg	1140
gcaaggccag	cattggctcc	cagtttcccc	aggatgttca	gtgactcgag	ccaggccctac	1200
ctggagagct	ttttggagct	gcgcagtcg	gtgtgctctg	ccaacgcccc	tgacctcagc	1260
cacctgggtg	gcggcccgtg	gtgtgggaac	ctgtttgtgg	agcgtggggg	cagtgctgac	1320
tgggcccccc	ccgaggagct	ccggaaccgc	tgctgcaact	ctaccacctg	ccagctgggt	1380
gagggggccc	agtgtgcgca	cggtaacctg	tgcccaggag	gcaaggtgaa	ggcggctggt	1440
gagctgtgcc	gtccccagaa	ggacatgtgt	gac			1473

&lt;210&gt; 44

&lt;211&gt; 772

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 44

tcgggtttct	tcctttgagg	agcacggcca	gcaccagtgt	gtgagggggg	caggcagcgg	60
tcctagccag	ttccttgatc	ctgccagacc	accagcccc	tggcacagag	ctgctccaca	120
ggcaccatga	ggatcatgct	gctattccaca	gccatcctgg	ccttcagcct	agctcagagc	180
tttggggctg	tctgtaagg	gccacaggag	gaggtgggtc	ctggcggggg	ccgcagcaag	240
gggatccag	atctctacca	gcgtctccag	agactcttca	aaagccaact	atctctggag	300
aggtgtctca	aagccctgag	ccaggytagc	acagatccta	aggaaatcaac	atctcccgag	360
aaacgtgaca	tgcatgactc	ctttgtggga	yttatgggca	agagagagct	ccagccagag	420
ttctctacgg	atgtgaatca	agagaacgtc	cccagctttg	gcattctcaa	gtatcccccg	480
agagcagaat	aggtactcca	cttcgggact	cctggactgc	attaggaaga	cctctttccc	540
tgtcccaact	cccaggctgc	caocgtcctg	ttaccttttc	tccttccctg	ctttgttaaca	600
ttctgtgct	ttctactcct	ctccatcttt	tctactgac	cctgggtgtg	aaactgcata	660
gtgaataatc	ccaaccccaa	tgggcatatg	ctgtagaata	ccctagagtt	cctgtagtgt	720
ctacatttaa	aaatataatg	ttctctctca	ttcctcaaca	aataaaggat	ctt	772

&lt;210&gt; 45

&lt;211&gt; 403

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE



&lt;222&gt; (15)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 45

aattcggcac	gagcntggaa	tgggaggcta	cggaagagat	ggaatggata	atcaggggagg	60
ctatggwtca	kttggaagaw	tgggaaatggg	gaacaattac	agtggaggat	atggtactcc	120
tgatggtttg	gggtggttatg	gccgtgggtgg	tggaggcagt	ggagggttact	atgggcaagg	180
cgccatgagt	ggagggtggat	ggcgtgggat	gtactgaaag	caaaaacacc	aacatacaag	240
tcttgacaac	agcatctgggt	ctactagact	ttcttacaga	tttaatttct	tttgtatttt	300
aagaacttta	taatgactga	aggaatgtgt	tttcaaaata	ttatttgta	aagcaacaga	360
ttgtgatggg	gaaaaaaaaa	aaaaaaaga	ttcaaaaagc	ttc		403

&lt;210&gt; 46

&lt;211&gt; 928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (148)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (163)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (532)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 46

cctctcgcta	attaacccaa	tgggccaaaa	gggggatgtt	gcctgcaang	ccaattaaat	60
ttgggttaaac	ccccaggntt	ttcccacagt	ccacgacgtt	gtaaaaaacg	acggcccaat	120
tgaatattgw	aaaaacsaac	ycactaanag	ggccaawtgg	gtnacsgggc	cccccccgga	180
rttttttttt	tttttttttt	ctgrttgwca	atgagratat	ttattgaggg	tttatttgagt	240
gcagggagaa	gggctkgatg	mcttgggtrg	ggaggagaga	ccccccctct	gggatccctgc	300
agctcayagk	tcccgtgggt	gggggtkagr	gttgrgaacc	tatgaacatt	ctgtaggggcg	360
cactgtcttc	tcacaggtgc	tcccttcagt	cgtgacctgg	cagctgtagc	ttctgtggga	420
cttccactgc	tcrgcgctca	ggctcaggta	gctgctggcc	gcgtacttgt	tgttgccttg	480
tttggagggt	ktggtggtct	ccactcccgc	cttgacgggg	ctgcyaatcg	cnttccaggc	540
cactgtcacr	gctcccgggt	agaagtctact	katsagacac	acyagtgtgg	ccttgtttggc	600
tttgragctcc	tcagaggagg	gcgggaacag	agtgacmgwg	gggkyrgcct	tgggctgacc	660
tgaggacggtg	accttgggtcc	cagttccgaa	gacmccatga	ttaccactgc	tgttctgttga	720
gtaacagtag	tagtcagccg	catctccac	ctggggccca	ctgatatgca	aggtggccac	780
tgtccctgar	ctggaggccar	agaattctcts	agggatccgg	aggggtcggtt	gttgccttca	840

tagatgacca	ggcacagggg	cctggcctga	cttctgktgg	taccaatawa	catatttctt	900
cggcaatgca	tctccaggag	caggtgat				928

<210> 47  
 <211> 885  
 <212> DNA  
 <213> Homo sapiens

<400> 47						
ggcacgaggg	aatctgcacc	atgccctggg	ttctgctcct	cctgaccctc	ctcactcaact	60
ctgcagtgct	agtggctcag	gcagggtctga	ctcagccccc	ctcgggtgtcc	aaggacttga	120
gacagaccgc	cacactcacc	tgccaccggga	acaacaacaa	tgttggtgac	caaggagcag	180
cttgggtgca	gcagaccag	ggccaccctc	ccaaactcct	gtcctacagg	aataataacc	240
ggccctcagg	gatctcagag	agattatctg	catccaggct	aggagccaca	tcctccctga	300
ccattactgg	actccagcct	gaggacgagg	ctgactatta	ctgcgcagca	tatgacagca	360
gcctcgaggt	ttggatgttc	ggcggaggga	ccaagctgac	cgtcctaggt	cagcccaagg	420
ctgccccctc	ggctactctg	ttcccaccct	ctctgagga	gcttcaagg	aacaaggcca	480
cactgtgtgtg	tctcataagt	gacttctacc	cgggagccgt	gacagtggcc	tggaaaggcag	540
atagcagccc	cgtcaaggcg	ggagtggaga	ccaccacacc	ctccaaacaa	agcaacaaca	600
agtacgcggc	cagcagctac	ctgagccctga	cgccctgagca	gtggaagtcc	cacaaaaagct	660
acagctgcca	ggctacgcat	gaaggggagca	cogtggagaa	gacagtggcc	cctacagaat	720
gttcataggt	tctcatccct	cacccccacc	caaggagac	tagagctgca	ggatcccagg	780
ggaggggtct	ctctctccac	cccaaggcat	caagcccttc	tcctctgcat	caataaacc	840
tcaataaata	ttctcattgt	caatcagaaa	aaaaaaaaaa	aaaaa		885

<210> 48  
 <211> 2315  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2264)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (2312)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (2315)  
 <223> n equals a,t,g, or c

<400> 48						
tttttttttt	tttgattttt	caaaaataac	ttttttatta	atttaaaaaa	ccagaaatac	60
agtgactaca	taaaataagta	ccataattag	gtacatgtcc	tgtgagaaca	gtgaaagggt	120
aatactgtta	tggtactctt	acttgtttac	atgaggttaac	tagaaaaatg	ctacaaactgc	180
taaatgatgc	ttatgtgtct	tggtgttcca	agtggttatg	atacaaaata	atacacaaga	240
agaaccacat	ccattctctt	ctactaacta	caggcagctt	ggcctcttta	ccctatgtcc	300
tattctctac	acaacaccaa	acactggagg	gtttctactt	tgacttaaca	cagctcccca	360
gctcctgctt	ccacacagcat	tttgcaaaag	tgtgtccca	cacctggagg	caggagtata	420
cttagggaaa	ctctctgcgt	gttctcttaa	ggctaagctt	ctcagagaaca	ctcgggtggg	480
aaggctttgg	gatgaatcat	ccagaaggag	aaacacctct	ttgccttagg	atctagttac	540
tagtctccac	attatggaat	cactgccacc	tctgggacgg	agggagcagc	cgcataaacac	600

cttccccctt	ttaccacaca	cacacacaca	cacacacaca	cacacacaaa	ggagcaaat	660
atgtgtgtgca	tggcgtgaat	aattgactgc	atttgagttt	ggagtttttag	ggcactgtgt	720
acttaagcaa	aataagcgtc	cagtcacagt	gcagcttgag	ttttctgttg	ttacctatc	780
caataactgct	tgtcttgctt	aacagtggtc	cttttcagat	ctctccaggt	acaaaaacct	840
gactaaaatct	tcaagctctg	ttctgcatac	acgacttgaa	cacatctggc	tgatctgagc	900
ttctctctgct	gtgaagatct	ttcactggct	cagggttggt	ctgggtcacca	gcttgaagt	960
aggaagctcc	tcaaacatct	ttctggagat	cttctcaata	tggaaagtgt	ggcaaatgcc	1020
ctttcgaaata	gtccaaacgt	ggacctctac	ctgaggtggt	ctctcagttc	ccagtgctat	1080
ttttctgggtt	gtctctccat	cctccatgaa	tacagactca	tacacagctc	tttcttcttc	1140
cccgacagaag	tagcctttat	tgtcaaaagt	ttggcctgga	agttcttctg	ggcacacctt	1200
gcagcatttt	cgtctatttt	tttgaggata	cttgcagggt	tatcgattgg	gacatgtggat	1260
ttctttacac	tttctgttgg	tgacattaca	agtacatagc	acacactcca	caatgccaaa	1320
tgcccgagg	tttgggtgct	aggactcgcc	atgagaatag	gtctttccat	tggaaacaca	1380
cacttggtcca	tgcttgtgtt	tgttattgat	gacaatttgc	acaaatggct	ctgatgtgtg	1440
ctgggaatcc	ataagagctc	cccggtgact	cttggcccca	ggaaagcggg	acagacctcc	1500
agcctgtctg	cttgggtgag	gatcatagtg	agagcgttgg	taagaatgtc	ttgtctctct	1560
cttggcaggt	tgccggaaga	tatcaccatc	agaatgttcc	catgacagtt	ctccatctcc	1620
ctctgcatacc	cgccagcagg	aatctggaaac	agagactggg	aaggcacagg	ttaatgttgg	1680
cgaaagtcttg	agaccacaat	acacgtttcc	ctccgaacag	ctgcactggg	tgcattgatt	1740
gggttgcgca	ttctgaaaga	gccttccagc	tacgaacagc	ttctccatgt	ggtaagtgtg	1800
cccatgtgat	tcgcaagact	tgctgggtcac	cttattgttc	actgggggta	aggagctctc	1860
tgggcgacga	ggcgagcaca	gatgaggaat	atacagcaga	gaaagggcat	gaacatttgg	1920
acatctgact	cggctgcaaa	gcacattccc	attctctgag	cagatcgagt	tcacgcagta	1980
aaccaaccca	taaggtttcca	ggtaaggatg	ccatctctca	cccactctgt	actttttgtc	2040
ctgaaaaatg	caatatgtct	ctgaatgttt	tttctgctct	gtttkgcttc	ctctagcaa	2100
aaagaaagctc	gtgcgcaaat	ctgcagcccc	ggggggatcc	actagtttcta	gagcgggccc	2160
caccgcaggtg	ggagctccag	cttttgggtc	cccttctaga	gggggttaat	ctgagcttgg	2220
cggtaatcat	gggtcatagc	tgtttctctg	gtgttgaaat	tggntatccc	gtccacaaa	2280
tccacaacaa	caatacagagc	cgggaagcata	angtn			2315

&lt;210&gt; 49

&lt;211&gt; 3175

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 49

ttttttttgt	caatcacttt	aatagatgtc	cataggtagt	tcatatgaat	gcttaagtta	60
aaaaatttag	tgccatggct	caaatgtatg	ggacttttag	aaagcttttc	ttactcaaaa	120
gataactaag	actatcaact	tgtatttcta	aaatgtaatt	taaaagtttg	taaaacaagg	180
ccactactat	aattatataa	tattaaagta	attaaagtgtt	atgttagtta	ttttaataac	240
aaacttoatga	actgttataa	attatcacat	tgcattctct	agttttacata	ttttgttatt	300
aacttgggaa	aaaacccatg	tgaaaagtgt	ccatgcagtt	acaaagggcg	cagcacatgc	360
tgtttttaca	ccaactttgt	attgcctcag	aacaggcctg	cactaaagca	tcaacaaaaa	420
ataccacaca	ccccactccc	accagaaaaa	ccaacccctta	cccccccg	gcaaaaaatta	480
cttgggtacaa	gcaatgacct	aaaaatgctt	ctttggttaa	aagcattttat	aaagtgcaga	540
gatctgaaca	gcaatagttg	tcgtgcagat	acatggggct	ctctcccaag	agttgggtcc	600
cgaaaggggtg	gaaagaaact	tcaatagtgt	aggaagagct	atttttcaaa	gtactcttcc	660
acatatctcat	ggccattttct	ttgaaagaac	ataccagacc	tcaactgtgg	ataagataaa	720
agcagagggga	gaagcaacgg	cacacagcca	taatatagag	aacagagctt	ctccatgaac	780
atccacagg	ctgcagcaac	caagaaggaa	aaaacatttg	tgattttcaca	cagaccaatg	840
atcttacctta	gggtgaagcat	tatttttcca	tgcattttgt	actcaagaaa	ataaacatcc	900
aaccacttta	aataacagcat	tacgttgtc	actggttggt	ggatcacagt	aggaaaaaaa	960
tgatgctctct	gtcccttagaa	ttttccatgt	acatgtcagt	atcccaatgc	ctcacagactt	1020
cttatttaatt	ttgtttatcag	catctccacc	ctaaaaacat	acactacatt	atgtttctggg	1080
tcctctgaaat	agaaaacatc	aagcaatgtt	tattgtgcaa	ttccaatcat	tatttgcaga	1140
atcttgggtt	agagtcagtc	tttatagcca	tttccaatgc	ttggtttaaa	caaaaagcaa	1200
caatctgggtt	atctacctat	aaatttcayg	gtattttctt	aaacactgaa	gtactaaaa	1260

```

cactgatgat ttgtattata atttttaaaa tatttaaaac ctacacagat ttcatagatc 1320
attcctttta taaaataatc aaaaataattt gattatctgg aaaaaaaat tcttgaaaca 1380
gagccctttc caggtatctt caatctctgt aaaaaccocaa acccccaaca gagtagatga 1440
tgaaataaag atttctcagt tgcccaagac tgtctgaaat ttaagggttga gaaatggact 1500
ggcggttttc atgtttccgt tgaaattcaga gcttacaggt ggcacacagaa ctcaaatctc 1560
tgggatgggt ttacatgggt ttacatttga ttgttttcat ttctatttgc ttcttttcca 1620
acttcttttk ctccgcctc aatgcagcct cctccagcct ggcgtgtttc tcaggatctt 1680
cctctatcat gattcgctcc ttctctgtctc tttttttctc ctccgcgcga gactgtgctg 1740
ctctctgtct ttgcacatgt gtcagtttca agaagtctct ttctactcgg gcacggttct 1800
tatctgtctt ttgtttgcct tctctgttga gtcggaaact ttgggcttta tcaatagaat 1860
aaatcaccat gtctatcagg ggtagcagtg cctccatctc ctttgggttaa gtgttacctg 1920
agccaggcac attaaatgta aacaacagtg tctcttagt gtcagggtagc tttaaagggt 1980
gaccttctct ttgcataatt ttgggaccag agaactgggt ccatctttgt atccatcatt ccgtctgtga 2040
tcttgtcagc atagtgtgta agaaagtga ccatctttgt tccatctttt gctccagact 2100
cttctcccat ctctgacagg atggccaaag agtcggcgag ttctctgtgt ttcctctctt atgggttact 2160
taggttttat actacaaaac tcaactcaat cctgcactct ttctgtagt gcaccacagg 2220
cttctcoggt gccaacagca aatcagtagg tcatcagctc ttctctctt atgggttact 2280
ttatttgcac ttgactactc actggcctca tcatccgggc caggacattc agtaagtctt 2340
gtctctttag gaacctcagc tggataagca tgcctccaca gcacactcga ccagaacacc 2400
acagggtata gatgtgtctc ttctctgtgt tgtgcttggg gcttcttggg 2460
tagttccatc atcccccatc aaagttaaagt tgcctcccaa aagctcccta tgagtgttaa 2520
accaggcgtg tcgaaggcga tcttctttat tcttccaaat gatgtaattc atgtataaag 2580
caagcagacc agtcaccatc aaaatttcta gataataact ctccagctgt ttctggaggt 2640
gtgcaggaac atcaacaact gttattgggt ctttattttt gctagaagaa gtaatcggtt 2700
gtcttccata accctcaaat ttctcactat catatgggtc actctcagta tctcctctct 2760
gggtatctgc atcttcaaaa tctctctctt ggttttctat ctgcccttcc aactccacag 2820
tggttctatc ttcatcatct tcagtgatta tgaccggtg aggagatgaa gtaaacagat 2880
cttccatgac atcttcaaat tcagcgaagt cattatctat atactctact atgtctctct 2940
catctccaaa atcatcaaac ttggcttcag agacactccc aaacaccaga aggacaacac 3000
agaaagtgtg gaaggtcttc attgcacctt gagaataaaa gctgtggcgc aagccgaaac 3060
ccggccacgc gccctgcgtc cgacaccctt gcccgcgctg ctctcgccct ggcccgccgc 3120
tccgcgatcg cagcggtttt actgcccggt atgctcttag gacgcagcca gaacc 3175

```

```

<210> 50
<211> 783
<212> DNA
<213> Homo sapiens

```

```

<400> 50
ggcagcggga aaggctggcc tctcttcamc atggggtctt ctggactttt gagcctcctg 60
gtgcatattg tctctttagc gaatgtccag ggaactgggt tgactgtatt gtattttccc 120
atggatgtgc ccaaaatcag agaagaatgt gaattccaag aaagggtagt gtgtacaaag 180
gacagacaat gccaggacaa caagaagtgt tgtgtcttca gctgcggaaa aaaatgttta 240
gatctcaaac aagatgtagt cgaaatgcc aagaaaactg gccctgctct ggcctatttt 300
cttcatgtgt ggtatgacaa gaaagataat acttgctcca tgtttgtcta tgggtggctgc 360
caggggaaac aatacaactc tccaatccaa agccaaactg ctgaacaact gcgaagaataa 420
acgtgttccc tgattggata aggatgcact ggaagaactg ccagaatgtg gctcatgtctc 480
gtgttactgt tctgtacctt gactgatgct ccagactggc ttccagattc actctcagca 540
ttccaagatc tttagccctc ccagaacaga acgcttgcat ctacctctct ttctctcatc 600
tttggcctct ttgatgcaca atatccatcc gttttgattt catcttttatg tccccattat 660
cttccaactc tagaactccc agtttatacc tgtgtcactc tcaatttttt ccagtaaaagt 720
acttgatgtw gaaaaaaaaa aaaaaaaaaa aaaccggca cgaggggggg cccggtacct 780
aat 848

```

```

<210> 51
<211> 3030

```

<212> DNA  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (60)  
<223> n equals a,t,g, or c

<220>  
<221> SITE  
<222> (2388)  
<223> n equals a,t,g, or c

```

<400> 51
ctctaagaac ctagtggatc cccccggcct gcaggaattc gggcacggag gggagacttn      60
ctgtggctaa gggaggcgcg gaagggccct ctgtggggct gccattttgg ctgggaacctta      120
aatgcagtaa aggagcagct acgggaatat agagagtggg gcttcaccggc agagaagcct      180
gcagtgcaaa ggtctgcaga caacgacctg ggcgctcttc agggacacaa ggaatcatat      240
tgccagaaca cattgtacag gtaccgaggt gtcggctccc accctgagaa ctctgggtgt      300
tggtctctgt gtcgtcccat attcctgcct ggctgcgat ggacatcagc aagggcctcc      360
caggcatgca gggaggccctc cacatatgga tctctgagaa ccggaagatg gtgccggtag      420
ccgagggggc ttacgggaac tttttcgagg aacactgcta tgtcatcctc cacgtccccc      480
agagcccgaa ggycacgcag ggggcgtcca gcgacctgca ctactgggtg ggggaagcagg      540
cgggtgcgga agcgcagggg gctgcggagg ccttcacaga gcgcctacag gacgagctgg      600
ggggccagac cgtgctgcac cgcgaggcgc agggccacga gtccgactgc tctcgacgtg      660
acttcgcccc ggggaatcatc tacaggaaag gaggcctagc atctgacctc aagcatgtgg      720
agaccaactt gttcaacatc cagcgactgc tgcacatcaa agggaggaag cactgtgtctg      780
ccactgaggt ggagctctcc tgggaacagt ttaataaggg tgacatcttc ctgctggacc      840
taggcaagat gatgattcag tgggaatggg ccaagaccag cattcttgag aaggctcggg      900
ggctggyctt gacctacagc ctccgggaca gggaaactgt tgggtggtgt gacagattgg      960
gtgtggtgga tgatgaggcc aaagccccgg acctcatgca gatcatggag gctgtgctgg      1020
gcccaggggt gggcgagmctg cgtgygcgca cggccagcaa ggatatacaac cagctgcaga      1080
aggccaatgt tcgcctgtac catgtctatg agaagggcaa agacctgtgt gtctggagt      1140
tgggcgacccc ccactgacc caggacctgc gtgtggcagg gacctctac atcctggacc      1200
agggtggttt caagatctat gtgtggcagg gacgatgtgc tagcctccag gagagaagg      1260
ctgccttcag cgggctgtgt ggcttcatcc agggcaaggg ctaccgcacc tacaccaaag      1320
tggaagtggt gaacgcagggc gccagctcgg ccgcttcaa gcagctcttc cgaacttggt      1380
ctgagaagcg gcgcaggaa cagaagmtcg gcgggagggg taaatcgatt catgtaaaagc      1440
tggaactgtgg caagctgcac acccagccta agttagcggc ccagctcagg atgggtggagc      1500
accgctctgg gaaggttgag ttgtggtgca tccaggactt acacaggcag cccgtggacc      1560
ccaagcgtca tggacagctg ttgtcaggca actgtacctt tgtgtctac acataccaga      1620
ggctggggcg tgtccagtag atctgtacc tatggcaggg ccaccaggcc actcgggatg      1680
agattgagcg cctgaacagc aacgctgagg aactagatgt catgtatggt ggcgtcctag      1740
tacaggagca tgtgaccatg gcgcagcagc cccccacctt ctccagctc ttccaggggc      1800
agctggtgat cttccaggag agagctgggg accacggaaa ggggcagtea gcattcaacca      1860
caaggctttt ccaagtgcac ggcactgaca gccacaacac caggaccatt gaggtgccag      1920
ccgctcctc atccctcaac tccagtgaca tcttctgtct ggtcacagcc agcgtcttgt      1980
acctctggtt tgggaaaggc ctgtaatggt gatcagcgtg agatggcagc ggtggtgtgt      2040
actgtcatct ccaggaagaa tgaggaaacg gtgctggagg ctccaggacc tccccacttc      2100
tgggaggccc tgggaggccg gggcccccta cccagcaaac aagaggctcc ctgaggaggt      2160
ccccagctc cagccacagc ttgtttgagt ctccagccac atgggctgcc tggctcctcgc      2220
agaagtgggg ttcttcagcc aggaggacct ggacaagtat gacatcatgt tactggacac      2280
ctggcaggag atcttctgtg ggcttgggga agctgcgaagt gagggtggaa ggcgcttggc      2340
ctggggccag gagtactctga agactcaccc agcaggagg agcccggnca acccactcgt      2400
gctggtcaag caggsgcatct agcctccac ctctcattgga tgggtcttca cttgggaacc      2460
ctacaagctg actagccacc catccacaa ggaagtgggt gatggcagc cggcagcagc      2520
atcaaccatc tctgagataa cagcagaagt caacaacttc cggctatcca gatggccggg      2580
caatggcagg gcaggtgccg tggccctgca ggccctcaag ggctccagg acagctcaga      2640

```

```

gaatgatytg gtgcgaagcc ccaagtcggc tggcagcaga accagcagct ccgtcagcag 2700
caccagcgcc acgatcaacg ggggcctgcg ccgggaacaa ctgatgcacc aggctgttga 2760
ggacctgcca gagggcgtgg accctgcccg cagggagttc tatctctcag actctgactt 2820
ccaagatata tttgggaaat ccaaggagga attctacagc atggccacgt ggaggcagcg 2880
gcaggagaaaa aagcagctgg gcttcttctg aacccaagcc ctctcgactg cccctatccc 2940
ctggacccca acatacctac aatgctgggg aggccttgct tccaactccc tcagaggctt 3000
ttggctatcc tctgcgtgtc agtaaaagca 3030

```

```

<210> 52
<211> 61
<212> PRT
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

```

```

<400> 52
Met Glu His Ala Ala Gly Leu Pro Val Thr Arg His Pro Leu Ala Leu
 1           5           10          15
Leu Leu Ala Leu Cys Pro Gly Pro Phe Pro Ala Leu Leu Leu Pro Leu
          20          25          30
Leu Pro Trp Gly Tyr Pro Leu Ala Pro Pro Gly Leu Cys Lys Leu Pro
          35          40          45
Gln Gly Ala Pro Leu Pro Cys Ser Ser Xaa Leu Thr Ser
          50          55          60

```

```

<210> 53
<211> 243
<212> PRT
<213> Homo sapiens

```

```

<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids

```

```

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

```

```

<400> 53
Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala Xaa Gly
 1           5           10          15
Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Val Ala Leu
          20          25          30
Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala
          35          40          45

```

Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val  
 50 55 60  
 Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Gly Phe Val Leu Ala  
 65 70 75 80  
 Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln  
 85 90 95  
 Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu  
 100 105 110  
 Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu  
 115 120 125  
 Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala  
 130 135 140  
 Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr  
 145 150 155 160  
 Thr His Gln Val Ala Thr Arg Ser Ser Leu Ser Cys Arg Thr Thr Thr  
 165 170 175  
 Arg Ser Pro Leu Arg Ser Arg Cys Pro Cys Pro Trp Arg Xaa Cys Cys  
 180 185 190  
 Leu Thr Ser Leu Pro Arg His Trp Ile Cys Trp Val Asn Ser Phe Ser  
 195 200 205  
 Thr Leu Leu Thr Ser Ala Ser Gln Leu Pro Arg Leu Ser Ser Ile Ser  
 210 215 220  
 Thr Ser Ser Gln Leu Pro Cys Leu Pro Ile His Leu Ser Cys Arg Phe  
 225 230 235 240  
 Leu Ser Val

&lt;210&gt; 54

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 54

Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp  
 1 5 10 15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro  
 20 25 30

Gly Ser Gln Gly Leu Gly Leu Asn Asn Cys Arg Ala Ala Cys His Asp  
 35 40 45

Leu Ser His Leu Leu Leu Ser His Ser Ala Ile Asn Gln Thr Lys Glu  
 50 55 60

Phe  
65

<210> 55  
<211> 37  
<212> PRT  
<213> Homo sapiens

<400> 55  
Met Leu Ala Arg Lys Ala Glu Arg Gly Ser Met Gly Thr Ala Arg Asp  
1 5 10 15  
Ser His Ile Leu Leu Val Cys Ser Val Val His Pro Ala Ser Ala Gln  
20 25 30

Pro Val Tyr Thr Val  
35

<210> 56  
<211> 317  
<212> PRT  
<213> Homo sapiens

<400> 56  
Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe  
1 5 10 15  
Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Ala Arg  
20 25 30  
Arg Arg Arg Cys Leu Asn Gly Asn Pro Pro Lys Arg Leu Lys Arg Arg  
35 40 45  
Asp Arg Arg Met Met Ser Gln Leu Glu Leu Leu Ser Gly Gly Glu Met  
50 55 60  
Leu Cys Gly Gly Phe Tyr Pro Arg Leu Ser Cys Cys Leu Arg Ser Asp  
65 70 75 80  
Ser Pro Gly Leu Gly Arg Leu Glu Asn Lys Ile Phe Ser Val Thr Asn  
85 90 95  
Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile Lys Cys Ala Leu Cys  
100 105 110  
Ser Pro His Ser Gln Ser Leu Phe His Ser Pro Glu Arg Glu Val Leu  
115 120 125  
Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys Asp Tyr Cys Lys Glu  
130 135 140  
Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly Phe Leu Gln Thr Thr  
145 150 155 160  
Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys Asp Gly Gly Leu Cys  
165 170 175



Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly Pro Ala Ser Asn Tyr  
180 185 190

Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu Glu Ile Ser Arg Lys  
195 200 205

His Lys His Asn Cys Phe Cys Ile Gln Glu Val Val Ser Gly Leu Arg  
210 215 220

Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly Ser Gln Arg Leu Phe  
225 230 235 240

Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu Thr Pro Glu Gly Glu  
245 250 255

Ile Phe Lys Lys Glu Pro Tyr Leu Asp Ile His Lys Leu Val Gln Ser Gly  
260 265 270

Ile Lys Val Gly Phe Leu Asn Phe Ile Tyr Phe Cys Ala Gly Tyr Val  
275 280 285

Asn Phe Ile Leu Val Leu Pro Ser Ser Leu Lys Val Phe Leu Cys Asn  
290 295 300

Lys Arg Lys Asn Leu Ala Gly Glu Asn Lys Gly Ala Thr  
305 310 315

<210> 57

<211> 41

<212> PRT

<213> Homo sapiens

<400> 57

Met Ser Trp Gly Ile Trp Lys Gly Leu Asp Leu Phe Pro Leu Ile Lys  
1 5 10 15

Gly Asn Ser Ser Ser Leu Cys Leu Phe Leu Leu Val Val Pro Lys Gly Tyr  
20 25 30

Ser Ser Ser Glu Ile Thr Arg Ala Leu  
35 40

<210> 58

<211> 57

<212> PRT

<213> Homo sapiens

<400> 58

Met Ser Leu Pro Cys His Leu Leu Pro Gly Leu Leu Gln Gln Leu Leu  
1 5 10 15

Thr Ser Leu Pro Ala Phe Gln Phe Ser Ala Pro Leu Gln Val Phe Ser  
20 25 30

Leu Asp Gly Leu Ser Leu Pro Ala Pro Lys Leu Leu Thr Ala Ser Leu

35

40

45

Cys Leu Gln Asp Glu Val Arg Ala Val  
 50 55

<210> 59  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 59  
 Met Ser Ser Trp Pro Phe Cys Pro Ser Leu Cys Phe Ser Leu Ser Asn  
 1 5 10 15

Leu Ile Pro Gly Ser Gly Leu Leu Pro Val Glu Thr Gly Glu Leu Gly  
 20 25 30

Leu Leu Ser Ala Ala Tyr Leu Leu Pro Phe Thr Cys Ile Gln Leu Leu  
 35 40 45

Gly Leu Gly Pro  
 50

<210> 60  
 <211> 296  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (281)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 60  
 Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg  
 1 5 10 15

Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu  
 20 25 30

Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly  
 35 40 45

Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg  
 50 55 60

Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn  
 65 70 75 80

Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe  
 85 90 95

Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met  
 100 105 110

Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys

115 120 125

Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys  
130 135 140

Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val  
145 150 155 160

Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile  
165 170 175

Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly  
180 185 190

Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val  
195 200 205

Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln  
210 215 220

Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg  
225 230 235 240

Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn  
245 250 255

Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp  
260 265 270

Asn Ile Pro Glu Glu Gln Pro Val Xaa Ser Thr Pro Thr Thr Val Ser  
275 280 285

Asp Gly Glu Asn Lys Lys Asp Lys  
290 295

<210> 61  
<211> 100  
<212> PRT  
<213> Homo sapiens

<400> 61  
Met Arg Ala Phe Arg Lys Asn Lys Thr Leu Gly Tyr Gly Val Pro Met  
1 5 10 15

Leu Leu Leu Ile Val Gly Gly Ser Phe Gly Leu Arg Glu Phe Ser Gln  
20 25 30

Ile Arg Tyr Asp Ala Val Lys Ser Lys Met Asp Pro Glu Leu Glu Lys  
35 40 45

Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu Ser Glu Tyr Glu Lys Ile  
50 55 60

Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn Ile Arg Gly Pro Arg Pro  
65 70 75 80

Trp Glu Asp Pro Asp Leu Leu Gln Gly Arg Asn Pro Glu Ser Leu Lys

85

90

95

Thr Lys Thr Thr  
100

<210> 62  
<211> 47  
<212> PRT  
<213> Homo sapiens

<400> 62  
Met Ile Gln Leu Ile Leu Gln Phe Trp Tyr Leu Phe Ser Met Leu Leu  
1 5 10 15

Lys Pro Val Gln Gln Cys Gln His Cys Ser Gln Ile Thr Pro Ser Gly  
20 25 30

Thr Met Pro Thr Ser Glu Thr Val Phe Leu Ile Leu Phe Leu Pro  
35 40 45

<210> 63  
<211> 162  
<212> PRT  
<213> Homo sapiens

<400> 63  
Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys  
1 5 10 15

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr  
20 25 30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala  
35 40 45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Ser Glu Leu Gly Gly Asp Phe  
50 55 60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu  
65 70 75 80

Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln  
85 90 95

Arg Ala Ala Gly Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe  
100 105 110

Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser  
115 120 125

Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp  
130 135 140

Asp Val Met Cys Ser Glu Ser Tyr Leu Phe Gly Pro Tyr Tyr Ser Ser  
145 150 155 160

Val Tyr

<210> 64  
 <211> 335  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (297)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 64  
 Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala  
 1 5 10 15  
 Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val  
 20 25 30  
 Leu Pro Xaa Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser  
 35 40 45  
 His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr  
 50 55 60  
 Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly  
 65 70 75 80  
 Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr  
 85 90 95  
 Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Val Glu  
 100 105 110  
 Gly Tyr Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg  
 115 120 125  
 Gly Phe Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp  
 130 135 140  
 Glu Gly Gly Glu Gly Arg His Ala Val Tyr Gln Ala Glu His Leu  
 145 150 155 160  
 Leu Gln Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser  
 165 170 175  
 Leu Leu Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp  
 180 185 190  
 Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val  
 195 200 205

Asp Asn Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His  
210 215 220

Arg Val Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu  
225 230 235 240

Asn Phe Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp  
245 250 255

Arg Phe His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu  
260 265 270

Thr Trp Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val  
275 280 285

Gln Leu Ile Thr Gly Val Asp Phe Xaa Gly Thr Thr Val Gly Phe Ala  
290 295 300

Arg Val Ser Thr Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp  
305 310 315 320

His Ser Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu  
325 330 335

<210> 65

<211> 356

<212> PRT

<213> Homo sapiens

<400> 65

Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met Asp Tyr Arg Gly Arg  
1 5 10 15

Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp Ala His Ala Val Asp  
20 25 30

Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe Arg Gly Arg Gly Thr  
35 40 45

Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser His Ala Asp Phe Arg  
50 55 60

Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala Arg Glu Gln Ser Arg  
65 70 75 80

Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu Asp Phe Arg Asp Lys  
85 90 95

Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly Ser Gly Thr Thr Asp  
100 105 110

Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp Phe Arg Gly Arg  
115 120 125

His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser  
130 135 140

Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val Asp Pro Asn Ile  
 145 150 155 160  
 Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu His Ser Gly Met  
 165 170 175  
 Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His Thr Ile Glu Arg  
 180 185 190  
 Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His Ser Glu Thr Arg  
 195 200 205  
 Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu Ser Pro Ala Asp  
 210 215 220  
 Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp Lys Ser Gln Leu  
 225 230 235 240  
 Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu  
 245 250 255  
 Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met  
 260 265 270  
 Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser Gln Met Phe Gly  
 275 280 285  
 Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala  
 290 295 300  
 Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu  
 305 310 315 320  
 Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro Glu Asp Ala Thr  
 325 330 335  
 Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp Gly Met Pro Val  
 340 345 350  
 Lys Asn Cys Ser  
 355

&lt;210&gt; 66

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 66

Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val  
 1 5 10 15

Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro  
20 25 30

Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp  
35 40 45

Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp  
50 55 60

Pro Leu Leu Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly  
65 70 75 80

Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg  
85 90 95

Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly  
100 105 110

Gln Gly Glu Gly Met Pro Ser Ser Asp Phe Thr Thr Glu  
115 120 125

<210> 67

<211> 77

<212> PRT

<213> Homo sapiens

<400> 67

Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly  
1 5 10 15

Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly Cys Pro  
20 25 30

Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg  
35 40 45

Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu Ser Asn  
50 55 60

Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu  
65 70 75

<210> 68

<211> 121

<212> PRT

<213> Homo sapiens

<400> 68

Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala  
1 5 10 15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro  
20 25 30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln  
35 40 45



Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu  
50 55 60

Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg  
65 70 75 80

Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln  
85 90 95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly  
100 105 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu  
115 120

<210> 69

<211> 26

<212> PRT

<213> Homo sapiens

<400> 69

Met Val Val Met Glu Val Leu Met Thr Met Val Ala Ile Ile Ile Thr  
1 5 10 15

Ala Met Gly Met Met Ala Leu Met Thr Glu  
20 25

<210> 70

<211> 235

<212> PRT

<213> Homo sapiens

<400> 70

Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val  
1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp  
20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val  
35 40 45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro  
50 55 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu  
65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr  
85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp  
100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val

115                                      120                                      125  
 Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser  
     130                                      135                                      140  
 Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser  
     145                                      150                                      155                                      160  
 Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser  
                                     165                                      170                                      175  
 Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn  
                                     180                                      185                                      190  
 Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp  
     195                                      200                                      205  
 Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr  
     210                                      215                                      220  
 Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser  
     225                                      230                                      235  
  
 <210> 71  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 71  
 Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn  
     1                                      5                                      10                                      15  
 Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr  
     20                                      25                                      30  
 Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val  
     35                                      40                                      45  
 Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys  
     50                                      55                                      60  
 Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp  
     65                                      70                                      75                                      80  
 Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe  
     85                                      90                                      95  
 Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu  
     100                                      105                                      110  
 Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu  
     115                                      120                                      125  
 Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys  
     130                                      135                                      140  
 Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe

145                      150                      155                      160  
 Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln  
                                  165                      170                      175  
 Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser  
                                  180                      185                      190  
 Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr  
                                  195                      200                      205  
 Leu Glu Arg Ser Glu Lys Gly His Cys  
                                  210                      215

<210> 72  
 <211> 492  
 <212> PRT  
 <213> Homo sapiens

<400> 72  
 Met Lys Ala Phe His Thr Phe Cys Val Val Leu Leu Val Phe Gly Ser  
                                  1                      5                      10                      15  
 Val Ser Glu Ala Lys Phe Asp Asp Phe Glu Asp Glu Glu Asp Ile Val  
                                  20                      25                      30  
 Glu Tyr Asp Asp Asn Asp Phe Ala Glu Phe Glu Asp Val Met Glu Asp  
                                  35                      40                      45  
 Ser Val Thr Glu Ser Pro Gln Arg Val Ile Ile Thr Glu Asp Asp Glu  
                                  50                      55                      60  
 Asp Glu Thr Thr Val Glu Leu Glu Gly Gln Asp Glu Asn Gln Glu Gly  
                                  65                      70                      75                      80  
 Asp Phe Glu Asp Ala Asp Thr Gln Glu Gly Asp Thr Glu Ser Glu Pro  
                                  85                      90                      95  
 Tyr Asp Asp Glu Glu Phe Glu Gly Tyr Glu Asp Lys Pro Asp Thr Ser  
                                  100                      105                      110  
 Ser Ser Lys Asn Lys Asp Pro Ile Thr Ile Val Asp Val Pro Ala His  
                                  115                      120                      125  
 Leu Gln Asn Ser Trp Glu Ser Tyr Tyr Leu Glu Ile Leu Met Val Thr  
                                  130                      135                      140  
 Gly Leu Leu Ala Tyr Ile Met Asn Tyr Ile Ile Gly Lys Asn Lys Asn  
                                  145                      150                      155                      160  
 Ser Arg Leu Ala Gln Ala Trp Phe Asn Thr His Arg Glu Leu Leu Glu  
                                  165                      170                      175  
 Ser Asn Phe Thr Leu Val Gly Asp Gly Thr Asn Lys Glu Ala Thr  
                                  180                      185                      190  
 Ser Thr Gly Lys Leu Asn Gln Glu Asn Glu His Ile Tyr Asn Leu Trp

195					200					205					
Cys	Ser	Gly	Arg	Val	Cys	Cys	Glu	Gly	Met	Leu	Ile	Gln	Leu	Arg	Phe
210					215					220					
Leu	Lys	Arg	Gln	Asp	Leu	Asn	Val	Leu	Ala	Arg	Met	Met	Arg	Pro	
225					230					235					240
Val	Ser	Asp	Gln	Val	Gln	Ile	Lys	Val	Thr	Met	Asn	Asp	Glu	Asp	Met
			245						250					255	
Asp	Thr	Tyr	Val	Phe	Ala	Val	Gly	Thr	Arg	Lys	Ala	Leu	Val	Arg	Leu
			260					265					270		
Gln	Lys	Glu	Met	Gln	Asp	Leu	Ser	Glu	Phe	Cys	Ser	Asp	Lys	Pro	Lys
			275					280					285		
Ser	Gly	Ala	Lys	Tyr	Gly	Leu	Pro	Asp	Ser	Leu	Ala	Ile	Leu	Ser	Glu
			290			295					300				
Met	Gly	Glu	Val	Thr	Asp	Gly	Met	Met	Asp	Thr	Lys	Met	Val	His	Phe
305					310					315					320
Leu	Thr	His	Tyr	Ala	Asp	Lys	Ile	Glu	Ser	Val	His	Phe	Ser	Asp	Gln
			325						330					335	
Phe	Ser	Gly	Pro	Lys	Ile	Met	Gln	Glu	Glu	Gly	Gln	Pro	Leu	Lys	Leu
			340					345					350		
Pro	Asp	Thr	Lys	Arg	Thr	Leu	Leu	Phe	Thr	Phe	Asn	Val	Pro	Gly	Ser
			355				360					365			
Gly	Asn	Thr	Tyr	Pro	Lys	Asp	Met	Glu	Ala	Leu	Leu	Pro	Leu	Met	Asn
			370				375					380			
Met	Val	Ile	Tyr	Ser	Ile	Asp	Lys	Ala	Lys	Lys	Phe	Arg	Leu	Asn	Arg
385					390					395				400	
Glu	Gly	Lys	Gln	Lys	Ala	Asp	Lys	Asn	Arg	Ala	Arg	Val	Glu	Glu	Asn
			405					410					415		
Phe	Leu	Lys	Leu	Thr	His	Val	Gln	Arg	Gln	Glu	Ala	Ala	Gln	Ser	Arg
			420				425						430		
Arg	Glu	Glu	Lys	Lys	Arg	Ala	Glu	Lys	Glu	Arg	Ile	Met	Asn	Glu	Glu
			435				440					445			
Asp	Pro	Glu	Lys	Gln	Arg	Arg	Leu	Glu	Glu	Ala	Ala	Leu	Arg	Arg	Glu
			450				455					460			
Gln	Lys	Lys	Leu	Glu	Lys	Lys	Gln	Met	Lys	Met	Lys	Gln	Ile	Lys	Val
465					470					475				480	
Lys	Ala	His	Val	Lys	Pro	Ser	Gln	Arg	Phe	Glu	Phe				
			485						490						

<211> 36  
 <212> PRT  
 <213> Homo sapiens

<400> 73  
 Met Leu Phe Leu Cys Leu Leu Pro Ser Leu Phe Pro Pro Gly Leu Pro  
 1 5 10 15

Thr Thr His Tyr Ile Thr Ser Ile Cys Asn Gln Ser Cys Tyr His His  
 20 25 30

Cys Ala Arg Ala  
 35

<210> 74  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (71)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 74  
 Met Ala Glu Leu Leu Leu Xaa Val Leu Ser Val Gln Ser Ala Val His  
 1 5 10 15

Glu Val Glu Ala Asn Glu Gly Gly Lys Gln Ser His Thr Pro Ala His  
 20 25 30

Arg Gly Trp Asn Arg Arg Ala Ala Glu Val Arg Lys Ala Arg Leu Pro  
 35 40 45

Leu Gly Val Thr Val Gly Pro Arg Cys Arg His Ala Val His Pro Ser  
 50 55 60

Lys Gly Gly Ile Ser Ala Xaa Ala Val Leu  
 65 70

<210> 75  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 75  
 Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu  
 1 5 10 15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg  
 20 25 30

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys  
35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser  
50 55 60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro  
65 70 75 80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp  
85 90 95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly  
100 105 110

Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys  
115 120 125

Asn Lys Arg Phe Pro  
130

<210> 76

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76

Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Arg Tyr  
1 5 10 15

Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro  
20 25 30

Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu  
35 40 45

Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys  
50 55 60

Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln  
65 70 75 80

Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile  
85 90 95

Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser

100	105	110
Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu		
115	120	125
Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser		
130	135	140
Ala Leu Ser Gly Thr Val Val Glu Leu Arg Cys Gln Asp Lys Glu Gly		
145	150	155
Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu		
165	170	175
Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met		
180	185	190
Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp		
195	200	205
Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg		
210	215	220
Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Ile		
225	230	235
Ile Ala Ala Val Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu		
245	250	255
Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Thr Ser		
260	265	270
Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn		
275	280	285
Asp Phe Lys His Thr Lys Ser Phe Ile Ile		
290	295	

&lt;210&gt; 77

&lt;211&gt; 856

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (190)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (233)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (595)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (683)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 77  
 Met Asp Ile Ser Lys Gly Leu Pro Gly Met Gln Gly Gly Leu His Ile  
 1 5 10 15  
 Trp Ile Ser Glu Asn Arg Lys Met Val Pro Val Pro Glu Gly Ala Tyr  
 20 25 30  
 Gly Asn Phe Phe Glu Glu His Cys Tyr Val Ile Leu His Val Pro Gln  
 35 40 45  
 Ser Pro Lys Xaa Thr Gln Gly Ala Ser Ser Asp Leu His Tyr Trp Val  
 50 55 60  
 Gly Lys Gln Ala Gly Ala Glu Ala Gln Gly Ala Ala Glu Ala Phe Gln  
 65 70 75 80  
 Gln Arg Leu Gln Asp Glu Leu Gly Gly Gln Thr Val Leu His Arg Glu  
 85 90 95  
 Ala Gln Gly His Glu Ser Asp Cys Phe Cys Ser Tyr Phe Arg Pro Gly  
 100 105 110  
 Ile Ile Tyr Arg Lys Gly Gly Leu Ala Ser Asp Leu Lys His Val Glu  
 115 120 125  
 Thr Asn Leu Phe Asn Ile Gln Arg Leu Leu His Ile Lys Gly Arg Lys  
 130 135 140  
 His Val Ser Ala Thr Glu Val Glu Leu Ser Trp Asn Ser Phe Asn Lys  
 145 150 155 160  
 Gly Asp Ile Phe Leu Leu Asp Leu Gly Lys Met Met Ile Gln Trp Asn  
 165 170 175  
 Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala Arg Gly Leu Xaa Leu Thr  
 180 185 190  
 Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly Gly Arg Ala Gln Ile Gly  
 195 200 205  
 Val Val Asp Asp Glu Ala Lys Ala Pro Asp Leu Met Gln Ile Met Glu  
 210 215 220  
 Ala Val Leu Gly Arg Arg Val Gly Xaa Leu Arg Ala Ala Thr Pro Ser  
 225 230 235 240  
 Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn Val Arg Leu Tyr His Val



245	250	255
Tyr Glu Lys Gly Lys Asp Leu Val Val Leu Glu Leu Ala Thr Pro Pro		
260	265	270
Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp Phe Tyr Ile Leu Asp Gln		
275	280	285
Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly Arg Met Ser Ser Leu Gln		
290	295	300
Glu Arg Lys Ala Ala Phe Ser Arg Ala Val Gly Phe Ile Gln Ala Lys		
305	310	315
Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val Val Asn Asp Gly Ala Glu		
325	330	335
Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr Trp Ser Glu Lys Arg Arg		
340	345	350
Arg Asn Gln Lys Leu Gly Gly Arg Asp Lys Ser Ile His Val Lys Leu		
355	360	365
Asp Val Gly Lys Leu His Thr Gln Pro Lys Leu Ala Ala Gln Leu Arg		
370	375	380
Met Val Asp Asp Gly Ser Gly Lys Val Glu Val Trp Cys Ile Gln Asp		
385	390	395
Leu His Arg Gln Pro Val Asp Pro Lys Arg His Gly Gln Leu Cys Ala		
405	410	415
Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr Gln Arg Leu Gly Arg Val		
420	425	430
Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His Gln Ala Thr Ala Asp Glu		
435	440	445
Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu Leu Asp Val Met Tyr Gly		
450	455	460
Gly Val Leu Val Gln Glu His Val Thr Met Gly Ser Glu Pro Pro His		
465	470	475
Phe Leu Ala Ile Phe Gln Gly Gln Leu Val Ile Phe Gln Glu Arg Ala		
485	490	495
Gly His His Gly Lys Gly Gln Ser Ala Ser Thr Thr Arg Leu Phe Gln		
500	505	510
Val Gln Gly Thr Asp Ser His Asn Thr Arg Thr Met Glu Val Pro Ala		
515	520	525
Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe Leu Leu Val Thr Ala		
530	535	540
Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Cys Asn Gly Asp Gln Arg		
545	550	555
		560

Glu	Met	Ala	Arg	Val	Val	Val	Thr	Val	Ile	Ser	Arg	Lys	Asn	Glu	Gly	565	570	575
Thr	Val	Leu	Glu	Gly	Gln	Glu	Pro	Pro	His	Phe	Trp	Glu	Ala	Leu	Gly	580	585	590
Gly	Arg	Xaa	Pro	Tyr	Pro	Ser	Asn	Lys	Arg	Leu	Pro	Glu	Glu	Val	Pro	595	600	605
Ser	Phe	Gln	Pro	Arg	Leu	Phe	Glu	Cys	Ser	Ser	His	Met	Gly	Cys	Leu	610	615	620
Val	Leu	Ala	Glu	Val	Gly	Phe	Phe	Ser	Gln	Glu	Asp	Leu	Asp	Lys	Tyr	625	630	635
Asp	Ile	Met	Leu	Leu	Asp	Thr	Trp	Gln	Glu	Ile	Phe	Leu	Trp	Leu	Gly	645	650	655
Glu	Ala	Ala	Ser	Glu	Trp	Lys	Glu	Ala	Val	Ala	Trp	Gly	Gln	Glu	Tyr	660	665	670
Leu	Lys	Thr	His	Pro	Ala	Gly	Arg	Ser	Pro	Xaa	Thr	Pro	Ile	Val	Leu	675	680	685
Val	Lys	Gln	Gly	His	Glu	Pro	Pro	Thr	Phe	Ile	Gly	Trp	Phe	Phe	Thr	690	695	700
Trp	Asp	Pro	Tyr	Lys	Trp	Thr	Ser	His	Pro	Ser	His	Lys	Glu	Val	Val	705	710	715
Asp	Gly	Ser	Pro	Ala	Ala	Ala	Ser	Thr	Ile	Ser	Glu	Ile	Thr	Ala	Glu	725	730	735
Val	Asn	Asn	Phe	Arg	Leu	Ser	Arg	Trp	Pro	Gly	Asn	Gly	Arg	Ala	Gly	740	745	750
Ala	Val	Ala	Leu	Gln	Ala	Leu	Lys	Gly	Ser	Gln	Asp	Ser	Ser	Glu	Asn	755	760	765
Asp	Leu	Val	Arg	Ser	Pro	Lys	Ser	Ala	Gly	Ser	Arg	Thr	Ser	Ser	Ser	770	775	780
Val	Ser	Ser	Thr	Ser	Ala	Thr	Ile	Asn	Gly	Gly	Leu	Arg	Arg	Glu	Gln	785	790	795
Leu	Met	His	Gln	Ala	Val	Glu	Asp	Leu	Pro	Glu	Gly	Val	Asp	Pro	Ala	805	810	815
Arg	Arg	Glu	Phe	Tyr	Leu	Ser	Asp	Ser	Asp	Phe	Gln	Asp	Ile	Phe	Gly	820	825	830
Lys	Ser	Lys	Glu	Glu	Phe	Tyr	Ser	Met	Ala	Thr	Trp	Arg	Gln	Arg	Gln	835	840	845
Glu	Lys	Lys	Gln	Leu	Gly	Phe	Phe									850	855	

<210> 78  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 78  
 Met Pro Cys Val Phe Cys Tyr Leu Leu Leu Leu Val Gln Phe Thr Tyr  
 1 5 10 15  
 Thr Phe Thr Leu Ser Asn Pro Asn Ser Ser Ser Arg Pro Asp Ser Asp  
 20 25 30  
 Phe Asn Phe Leu Lys Ala Ile  
 35

<210> 79  
 <211> 30  
 <212> PRT  
 <213> Homo sapiens

<400> 79  
 Met Ala Leu Ser Val Leu Val Leu Leu Leu Ala Val Leu Tyr Glu  
 1 5 10 15  
 Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp  
 20 25 30

<210> 80  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 80  
 Met Pro Ala Leu Val Leu Leu Pro Arg Val Leu Pro Pro Gly Gln Gly  
 1 5 10 15  
 Glu Val Gln Arg Val Arg Cys Pro Tyr Val Gly Asn Ser Ser Gly Arg  
 20 25 30  
 Lys Ile Trp Phe Gly Phe Ile Leu Arg Ala Ile Lys His  
 35 40 45

<210> 81  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 81  
 Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp  
 1 5 10 15  
 Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro  
 20 25 30

Gly Ser Gln Gly Pro Gly Phe  
35

<210> 82  
<211> 36  
<212> PRT  
<213> Homo sapiens

<400> 82  
Met Leu Ser Phe Lys Leu Leu Leu Leu Ala Val Ala Leu Gly Phe Phe  
1 5 10 15

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Gln Gly  
20 25 30

Gly Glu Gly Ala  
35

<210> 83  
<211> 293  
<212> PRT  
<213> Homo sapiens

<400> 83  
Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg Leu Ser Arg  
1 5 10 15

Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu Ser Ala Ala  
20 25 30

Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro Thr  
35 40 45

Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu  
50 55 60

Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser  
65 70 75 80

Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val  
85 90 95

Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu  
100 105 110

Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu  
115 120 125

Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp  
130 135 140

Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe  
145 150 155 160

Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp  
165 170 175

Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp  
 180 185 190  
 Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser  
 195 200 205  
 Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys  
 210 215 220  
 Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser  
 225 230 235 240  
 Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu  
 245 250 255  
 Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro  
 260 265 270  
 Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu  
 275 280 285  
 Asn Lys Lys Asp Lys  
 290  
 <210> 84  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens  
 <400> 84  
 Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala  
 1 5 10 15  
 Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val  
 20 25 30  
 Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser  
 35 40 45  
 His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr  
 50 55 60  
 Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly  
 65 70 75 80  
 Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr  
 85 90 95  
 Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu  
 100 105 110  
 Gly Thr Gly Leu Ser Arg Gln Pro Gln His Leu Cys Arg Pro Gln Gly  
 115 120 125  
 Phe Leu Pro Gly Gly Val Arg Pro Ala Pro Asp Arg Ala Pro Gly  
 130 135 140

<210> 85  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (67)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 85  
 Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala  
 1 5 10 15  
 Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro  
 20 25 30  
 Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln  
 35 40 45  
 Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu  
 50 55 60  
 Ser Gln Xaa Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg  
 65 70 75 80  
 Asp Met His Asp Phe Phe Val Gly Xaa Met Gly Lys Arg Ser Val Gln  
 85 90 95  
 Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly  
 100 105 110  
 Ile Leu Lys Tyr Pro Pro Arg Ala Glu  
 115 120

<210> 86  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
 Met Val Leu Leu Met Val Trp Val Val Met Ala Val Val Val Glu Ala  
 1 5 10 15  
 Val Glu Val Thr Met Gly Lys Ala Ala  
 20 25

<210> 87  
 <211> 4

<400> 87  
Ser Leu His Ala  
1

```
<400> 88  
Met Pro Trp Val Leu Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val  
      1              5              10             15
```

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val  
35 40 45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro  
50 55 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu  
65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr  
85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp  
100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val  
115 120 125

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser  
130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser  
145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser  
165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn  
180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp  
195 200 205

Lys Ser His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr  
210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser  
225                      230                      235

<210> 89  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 89  
 Met Ser Leu Asn Val Leu Leu Ala Leu Phe Xaa Leu Leu Leu Ala Lys  
           1                  5                  10                  15  
 Glu Ser Ser Cys Arg Ile Pro Ala Ala Arg Gly Asp Pro Leu Val Leu  
                   20                  25                  30  
 Glu Arg Pro Pro Pro Arg Trp Glu Leu Gln Leu Leu Val Pro Phe Ser  
           35                  40                  45  
 Glu Gly Leu Ile Ser Ser Leu Ala Val Ile Met Gly His Ser Leu Phe  
           50                  55                  60  
 Pro Gly Val Glu Ile Gly Tyr Pro Ala His Lys Phe His Asn Asn Asn  
           65                  70                  75                  80  
 Thr Ser Arg Lys His Xaa Val  
                   85

<210> 90  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (22)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 90  
 Met Ala Leu His Gly Phe His Phe Asp Leu Phe His Phe His Leu Leu  
           1                  5                  10                  15  
 Leu Phe Gln Leu Leu Xaa Leu Thr Pro Gln Cys Ser Leu Leu Gln Pro  
           20                  25                  30  
 Ala Leu Phe Leu Arg Ile Phe Leu Ile His Asp Ser Leu Leu Cys  
           35                  40                  45  
 Ser Phe Phe Leu Leu Pro Pro Arg Leu Cys Cys Phe Leu Ser Leu His



```
<210> 91
<211> 59
<212> PRT
<213> Homo sapiens
```

```
<210> 92
<211> 32
<212> PRT
<213> Homo sapiens
```

```
<210> 93
<211> 178
<212> PRT
<213> Homo sapiens
```

```

<400> 93
Phe Ser Val Thr Asn Asn Thr Glu Cys Gly Lys Leu Leu Glu Ile
  1             5             10             15
Lys Cys Ala Leu Cys Ser Pro His Ser Gln Ser Leu Phe His Ser Pro
          20             25             30

```

Glu Arg Glu Val Leu Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys  
35 40 45

Asp Tyr Cys Lys Glu Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly  
50 55 60

Phe Leu Gln Thr Thr Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys  
65 70 75 80

Asp Gly Gly Leu Cys Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly  
85 90 95

Pro Ala Ser Asn Tyr Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu  
100 105 110

Glu Ile Ser Arg Lys His Lys His Asn Cys Phe Cys Ile Gln Glu Val  
115 120 125

Val Ser Gly Leu Arg Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly  
130 135 140

Ser Gln Arg Leu Phe Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu  
145 150 155 160

Thr Pro Glu Gly Glu Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys  
165 170 175

Leu Val

<210> 94

<211> 216

<212> PRT

<213> Homo sapiens

<400> 94

Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met  
1 5 10 15

Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val  
20 25 30

Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr  
35 40 45

Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr  
50 55 60

Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly  
65 70 75 80

Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu  
85 90 95

Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp  
100 105 110

Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu  
115 120 125

Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg  
130 135 140

Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr  
145 150 155 160

Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met  
165 170 175

Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe  
180 185 190

Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln  
195 200 205

Arg Ala Lys Lys Leu Ser Lys Ala  
210 215

<210> 95

<211> 196

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95

Gln Leu Ile Val Thr Ala Arg Thr Thr Arg Gly Leu Asp Pro Leu Phe  
1 5 10 15

Gly Met Cys Glu Lys Phe Leu Gln Glu Val Asp Phe Phe Gln Arg Tyr  
20 25 30

Phe Ile Ala Asp Leu Pro His Leu Gln Asp Ser Phe Val Asp Lys Leu  
35 40 45

Leu Asp Leu Met Pro Arg Leu Met Thr Ser Lys Pro Ala Glu Val Val  
50 55 60

Lys Ile Leu Gln Thr Met Leu Arg Gln Ser Ala Phe Leu His Leu Pro  
65 70 75 80

Leu Pro Glu Gln Ile His Lys Ala Ser Ala Thr Ile Ile Glu Pro Ala  
85 90 95

Gly Glu Phe Arg Gln Pro Phe Ala Val Tyr Leu Trp Val Gly Gly Cys  
100 105 110

Pro Gly Met Leu Met Gln Pro Trp Ser Met Cys Arg Ile Leu Arg Thr  
115 120 125

Leu Leu Arg Ser Arg Val Leu Tyr Pro Asp Gly Gln Xaa Ser Asp Asp  
130 135 140

Ser Pro Gln Ala Cys Arg Leu Pro Glu Ser Trp Pro Arg Ala Ala Pro  
145 150 155 160

Ala His His Ser Gly Leu Ser Leu Pro His Arg Leu Asp Arg Gly Met  
165 170 175

Pro Gly Gly Ser Glu Ala Ala Ala Gly Leu Gln Leu Gln Cys Ser His  
180 185 190

Ser Lys Met Pro  
195

<210> 96

<211> 255

<212> PRT

<213> Homo sapiens

<400> 96

Ile His Leu Ala Leu Val Glu Leu Leu Lys Asn Leu Thr Lys Tyr Pro  
1 5 10 15

Thr Asp Arg Asp Ser Ile Trp Lys Cys Leu Lys Phe Leu Gly Ser Arg  
20 25 30

His Pro Thr Leu Val Leu Pro Leu Val Pro Glu Leu Leu Ser Thr His  
35 40 45

Pro Phe Phe Asp Thr Ala Glu Pro Asp Met Asp Asp Pro Ala Tyr Ile  
50 55 60

Ala Val Leu Val Leu Ile Phe Asn Ala Ala Lys Thr Cys Pro Thr Met  
65 70 75 80

Pro Ala Leu Phe Ser Asp His Thr Phe Arg His Tyr Ala Tyr Leu Arg  
85 90 95

Asp Ser Leu Ser His Leu Val Pro Ala Leu Arg Leu Pro Gly Arg Lys  
100 105 110

Leu Val Ser Ser Ala Val Ser Pro Ser Ile Ile Pro Gln Glu Asp Pro  
115 120 125

Ser Gln Gln Phe Leu Gln Gln Ser Leu Glu Arg Val Tyr Ser Leu Gln  
130 135 140

His Leu Asp Pro Gln Gly Ala Gln Glu Leu Leu Glu Phe Thr Ile Arg  
145 150 155 160

Asp Leu Gln Arg Leu Gly Glu Leu Gln Ser Glu Leu Ala Gly Val Ala  
165 170 175

Asp Phe Ser Ala Thr Tyr Leu Arg Cys Gln Leu Leu Leu Ile Lys Ala  
180 185 190

Leu Gln Glu Lys Leu Trp Asn Val Ala Ala Pro Leu Tyr Leu Lys Gln  
195 200 205

Ser Asp Leu Ala Ser Ala Ala Lys Gln Ile Met Glu Glu Thr Tyr  
210 215 220

Lys Met Glu Phe Met Tyr Ser Gly Val Glu Asn Lys Gln Val Val Ile  
225 230 235 240

Ile His His Met Arg Leu Gln Ala Lys Ala Leu Gln Leu Ile Val  
245 250 255

<210> 97  
<211> 137  
<212> PRT  
<213> Homo sapiens

<400> 97  
Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr Gly  
1 5 10 15

Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val Leu  
20 25 30

Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe Ser  
35 40 45

Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn Met  
50 55 60

Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala Met  
65 70 75 80

Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Gly Ile Ile Pro Phe  
85 90 95

Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala Ile  
100 105 110

Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln Leu  
115 120 125

Pro Pro Asn Phe Pro Tyr Arg Asp Asp  
130 135

<210> 98  
<211> 87  
<212> PRT  
<213> Homo sapiens

<400> 98  
Phe Pro Thr Glu Met Met Ser Cys Ala Val Asn Pro Thr Cys Leu Val  
1 5 10 15

Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr  
20 25 30

Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn  
35 40 45

Ser Ser Asp Val Leu Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu  
50 55 60

Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro  
65 70 75 80

Pro Pro Pro Tyr Val Ser Ala  
85

<210> 99

<211> 97

<212> PRT

<213> Homo sapiens

<400> 99

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val  
1 5 10 15

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser  
20 25 30

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr  
35 40 45

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly  
50 55 60

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr  
65 70 75 80

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu  
85 90 95

Gly

<210> 100

<211> 240

<212> PRT

<213> Homo sapiens

<400> 100

Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg Gly Phe  
1 5 10 15

Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp Gly Gly  
20 25 30

Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu Leu Gln  
35 40 45

Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser Leu Leu

50	55	60
Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp Ser Leu		
65	70	75 80
Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val Asp Asn		
	85	90 95
Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His Arg Val		
	100	105 110
Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu Asn Phe		
	115	120 125
Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp Arg Phe		
	130	135 140
His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu Thr Trp		
	145	150 155 160
Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val Gln Leu		
	165	170 175
Ile Thr Gly Val Asp Phe Thr Gly Thr Thr Val Gly Phe Ala Arg Val		
	180	185 190
Ser Ala Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp His Ser		
	195	200 205
Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu Met Gly His		
	210	215 220
Asn Leu Gly Met Asp His Asp Glu Asn Val Gln Gly Cys Arg Cys Gln		
	225	230 235 240

&lt;210&gt; 101

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 101

Phe Glu Ala Gly Arg Cys Ile Met Ala Arg Pro Ala Leu Ala Pro Ser		
1	5	10 15

Phe Pro Arg Met Phe Ser Asp Cys Ser Gln Ala Tyr Leu Glu Ser Phe		
	20	25 30

Leu Glu Arg Pro Gln Ser Val Cys Leu Ala Asn Ala Pro Asp Leu Ser		
	35	40 45

His Leu Val Gly Gly Pro Val Cys Gly Asn Leu Phe Val Glu Arg Gly		
	50	55 60

Glu Gln Cys Asp Cys Gly Pro Pro Glu Asp Cys Arg Asn Arg Cys Cys

65                      70                      75                      80  
 Asn Ser Thr Thr Cys Gln Leu Ala Glu Gly Ala Gln Cys Ala His Gly  
                          85                      90                      95  
 Thr Cys Cys Gln Glu Cys Lys Val Lys Pro Ala Gly Glu Leu Cys Arg  
                          100                      105                      110  
 Pro Lys Lys Asp Met Cys  
                          115  
  
 <210> 102  
 <211> 471  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 102  
 Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro  
   1                         5                         10                         15  
 Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe  
                          20                         25                         30  
 Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro  
                          35                         40                         45  
 Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp  
   50                         55                         60  
 Gly Pro His Gly Asp Tyr Arg Gly Gly Glu Gly Pro Gly His Asp Phe  
   65                         70                         75                         80  
 Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser  
                          85                         90                         95  
 Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp  
   100                         105                         110  
 Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met  
   115                         120                         125  
 Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp  
   130                         135                         140  
 Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe  
   145                         150                         155                         160  
 Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser  
                          165                         170                         175  
 His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala  
   180                         185                         190  
 Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu  
   195                         200                         205  
 Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly



210                      215                      220  
 Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser  
 225                      230                      235                      240  
 Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly  
                     245                      250                      255  
 Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro  
                     260                      265                      270  
 Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg  
                     275                      280                      285  
 Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp  
                     290                      295                      300  
 His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu  
 305                      310                      315                      320  
 His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His  
                     325                      330                      335  
 Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln  
                     340                      345                      350  
 Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly  
                     355                      360                      365  
 Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr  
                     370                      375                      380  
 Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly  
 385                      390                      395                      400  
 Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys  
                     405                      410                      415  
 Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr  
                     420                      425                      430  
 Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val  
                     435                      440                      445  
 Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro  
                     450                      455                      460  
 Asp Gly Met Pro Val Lys Asn  
 465                      470  
  
 <210> 103  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 103  
 Gly Leu Gln Asp Ser Ala Arg Gly Gly Ser Gln Glu Glu Arg Phe Ala

```

1             5             10             15
Pro Gly Trp Asn Arg Asp Tyr Pro Pro Pro Leu Lys Ser His Ala
      20             25             30
Gln Glu Arg His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe
      35             40             45
Asp Phe Gln Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His
      50             55             60
Ser Phe Ser Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly
      65             70             75             80
Gly Glu Gly Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser Ser
      85             90             95
Asp Phe Gln Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp
      100            105            110
Ile His Ser Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro
      115            120            125

<210> 104
<211> 330
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (181)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (190)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (260)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 104
Met Leu Pro Asp Trp Lys Xaa Ser Leu Ile Leu Met Ala Tyr Ile Ile
1             5             10             15

```

Ile Phe Leu Thr Gly Leu Pro Ala Asn Leu Leu Ala Leu Arg Ala Phe  
 20 25 30  
 Val Gly Arg Ile Arg Gln Pro Gln Pro Ala Pro Val His Ile Leu Leu  
 35 40 45  
 Leu Ser Leu Thr Leu Ala Asp Leu Leu Leu Leu Leu Leu Pro Phe  
 50 55 60  
 Lys Ile Ile Glu Ala Ala Ser Asn Phe Arg Trp Tyr Leu Pro Lys Val  
 65 70 75 80  
 Val Cys Ala Leu Thr Ser Phe Gly Phe Tyr Ser Ser Ile Tyr Cys Ser  
 85 90 95  
 Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly Val Ala  
 100 105 110  
 Phe Pro Val Gln Tyr Lys Leu Ser Arg Arg Pro Leu Tyr Gly Val Ile  
 115 120 125  
 Ala Ala Leu Val Ala Trp Val Met Ser Phe Gly His Cys Thr Ile Val  
 130 135 140  
 Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val Arg Ser Gly Asn  
 145 150 155 160  
 Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln Leu Asp Val Val  
 165 170 175  
 Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe Phe Xaa Pro Met  
 180 185 190  
 Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp Ile Met Leu Ser  
 195 200 205  
 Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val Gly Leu Ala  
 210 215 220  
 Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro Tyr Asn Val  
 225 230 235 240  
 Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp Trp Arg Ser  
 245 250 255  
 Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp Pro Leu Leu  
 260 265 270  
 Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly Arg Gly Leu  
 275 280 285  
 Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg Arg Gly Lys  
 290 295 300  
 Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly Gln Gly Glu  
 305 310 315 320  
 Gly Met Pro Ser Ser Asp Phe Thr Thr Glu

325

330

<210> 105  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 105  
 Cys Ser Thr Trp Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly  
 1 5 10 15

Val

<210> 106  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens  
 <220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (41)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
 <220>  
 <221> SITE  
 <222> (50)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 106  
 Cys Thr Ile Val Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val  
 1 5 10 15

Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln  
 20 25 30

Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe  
 35 40 45

Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp  
 50 55 60

Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Ala  
 65 70 75 80

Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys  
 85 90

<210> 107  
 <211> 143

<212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (25)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 107  
 Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr  
 1 5 10 15  
 Val Val Ala Pro Ser Ala Val Ala Xaa Lys Arg Pro Pro Glu Pro Thr  
 20 25 30  
 Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn Leu Tyr Glu  
 35 40 45  
 Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val  
 50 55 60  
 Trp Asn Met Arg Leu Val Phe Phe Phe Gly Val Ser Ile Ile Leu Val  
 65 70 75 80  
 Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly  
 85 90 95  
 Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala  
 100 105 110  
 Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu  
 115 120 125  
 Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu  
 130 135 140

<210> 108  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens

<400> 108  
 Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys  
 1 5 10 15  
 Arg Ser Val Gln Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val  
 20 25 30  
 Pro Ser Phe Gly  
 35

<210> 109  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 109

Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg  
 1 5 10 15

&lt;210&gt; 110

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 110

Asp Met His Asp Phe Phe Val Gly Leu Met  
 1 5 10

&lt;210&gt; 111

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 111

Glu Trp Glu Ala Thr Glu Glu Met Glu Trp Ile Ile Arg Glu Ala Met  
 1 5 10 15

&lt;210&gt; 112

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 112

Trp Glu Trp Gly Thr Ile Thr Val Glu Asp Met Val Leu Leu Met Val  
 1 5 10 15

Trp Val Val Met Ala Val Val Val Glu Ala Val Glu Val Thr Met Gly  
 20 25 30

Lys Ala Ala  
 35

&lt;210&gt; 113

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 113

Gly Met Gly Gly Tyr Gly Arg Asp Gly Met Asp Asn Gln Gly Gly Tyr  
 1 5 10 15

Gly Ser

&lt;210&gt; 114

<211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu  
 1 5 10 15  
 Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln  
 20 25 30  
 Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met  
 35 40

<210> 115  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 115  
 Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu  
 1 5 10 15  
 Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln  
 20 25 30  
 Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met  
 35 40

<210> 116  
 <211> 223  
 <212> PRT  
 <213> Homo sapiens

<400> 116  
 Trp Asp Ser Thr Thr Ser Trp Thr Thr Ile Trp Leu Gln Gln Arg Gly  
 1 5 10 15  
 Asn Ser Ser Val Leu Ser Arg Val Gly Asn Arg Ala Asn Gly Ile Thr  
 20 25 30  
 Leu Thr Met Asp Tyr Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln  
 35 40 45  
 Phe Ala Ser Lys Glu Ile Ala Glu Asn Ala Leu Gly Lys His Lys Glu  
 50 55 60  
 Arg Ile Gly His Arg Tyr Ile Glu Ile Phe Arg Ser Ser Arg Ser Glu  
 65 70 75 80  
 Ile Lys Gly Phe Tyr Asp Pro Pro Arg Arg Leu Leu Gly Gln Arg Pro  
 85 90 95  
 Gly Pro Tyr Asp Arg Pro Ile Gly Gly Arg Gly Gly Tyr Tyr Gly Ala  
 100 105 110

&lt;222&gt; (187)



<223> Xaa equals any of the naturally occurring L-amino acids

<400> 118

Met Met Ile Gln Trp Asn Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala  
1 5 10 15

Arg Gly Leu Xaa Leu Thr Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly  
20 25 30

Gly Arg Ala Gln Ile Gly Val Val Asp Asp Glu Ala Lys Ala Pro Asp  
35 40 45

Leu Met Gln Ile Met Glu Ala Val Leu Gly Arg Arg Val Gly Xaa Leu  
50 55 60

Arg Xaa Ala Thr Pro Ser Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn  
65 70 75 80

Val Arg Leu Tyr His Val Tyr Glu Lys Gly Lys Asp Leu Val Val Leu  
85 90 95

Glu Leu Ala Thr Pro Pro Leu Thr Gln Asp Leu Leu Gln Glu Asp  
100 105 110

Phe Tyr Ile Leu Asp Gln Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly  
115 120 125

Arg Met Ser Ser Leu Gln Glu Arg Lys Ala Ala Phe Ser Arg Ala Val  
130 135 140

Gly Phe Ile Gln Ala Lys Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val  
145 150 155 160

Val Asn Asp Gly Ala Glu Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr  
165 170 175

Trp Ser Glu Lys Arg Arg Arg Asn Gln Lys Xaa Gly Gly Arg Asp Lys  
180 185 190

Ser Ile His Val Lys Leu Asp Val Gly Lys Leu His Thr Gln Pro Lys  
195 200 205

Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu  
210 215 220

Val Trp Cys Ile Gln Asp Leu His Arg Gln Pro Val Asp Pro Lys Arg  
225 230 235 240

His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr  
245 250 255

Gln Arg Leu Gly Arg Val Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His  
260 265 270

Gln Ala Thr Ala Asp Glu Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu  
275 280 285

Leu Asp Val Met Tyr Gly Gly Val Leu Val Gln Glu His Val Thr Met

290					295					300					
Gly	Ser	Glu	Pro	Pro	His	Phe	Leu	Ala	Ile	Phe	Gln	Gly	Gln	Leu	Val
305					310					315					320
Ile	Phe	Gln	Glu	Arg	Ala	Gly	His	His	Gly	Lys	Gly	Gln	Ser	Ala	Ser
				325					330					335	
Thr	Thr	Arg	Leu	Phe	Gln	Val	Gln	Gly	Thr	Asp	Ser	His	Asn	Thr	Arg
			340					345					350		
Thr	Met	Glu	Val	Pro	Ala	Arg	Ala	Ser	Ser	Leu	Asn	Ser	Ser	Asp	Ile
		355					360					365			
Phe	Leu	Leu	Val	Thr	Ala	Ser	Val	Cys	Tyr	Leu	Trp	Phe	Gly	Lys	Gly
370						375					380				